



مركز الحسين للدراسات والتفوق  
*Al Hussein Fund for Excellence*

# Overview Report

## Assessment of a Selected Number of Academic Programmes in Higher Education Institutions in Jordan

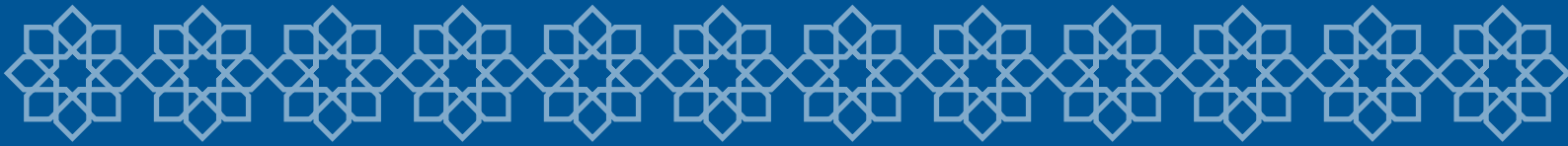
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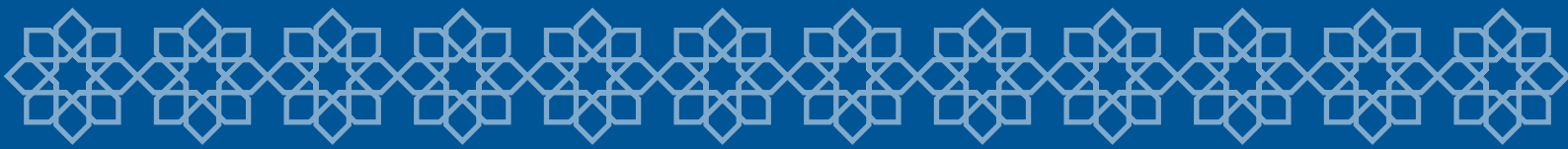
## **OVERVIEW REPORT**

### **Assessment of a Selected Number of Academic Programmes in Higher Education Institutions in Jordan**

Conducted by Al Hussein Fund for Excellence  
in the Period (2001 – 2009)

January 2012  
The Hashemite Kingdom of Jordan





## Hashemite Kingdom of Jordan

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## FOREWORD

**By: HE Dr. Ziad Fariz**  
**Chairman of the HFE Board of Directors,**  
**Governor of the Central Bank of Jordan**

As a first report of its kind published by Al Hussein Fund for Excellence (HFE), I would like to take this opportunity to express my sincere admiration of the great deal of accomplishments made by the former consecutive chairmen of the HFE, the board of directors and the HFE team by implementing projects that clearly reflect the corporate social responsibilities of banks in Jordan.

The HFE, as an NGO, was established in 1999 under the patronage of HM King Abdullah II and funded by the banking community in Jordan in their quest to promote excellence, encourage innovation and endorse sustainable development in the Kingdom by supporting developmental, talent enhancement and technology transfer projects and programs.

In order to achieve such goals, the HFE has adopted the visions and recommendations of a considerable number of higher education practitioners, regulators, policy makers and the private and public sectors alike. As a result, the HFE embarked on a national project for “assessing the quality of higher education programmes in Jordanian universities and institutions”, one of the first pioneering projects launched by the HFE since its establishment.

To implement the project par excellence and in a manner by which the project achieves its aspired level of credibility and impact, the HFE contracted top notch Arab and international experts and adopted internationally recognized tools for quality assessment. It is worth mentioning in this context that Al Hussein Fund for Excellence was the first Arab establishment that addressed the quality of higher education programmes.

This Overview Report is a compilation of these efforts; including the findings, opinions and recommendations of a considerable number of practitioners and experts in quality assurance of academic programs, that have worked closely with the HFE to conduct 9 review cycles in which 83 programmes in 7 different academic disciplines from 17 different Jordanian universities and 6 intermediate colleges were reviewed.

The report also provides a brief reflection of the evident vast developments of the Higher Education infrastructure in the past twenty years in Jordan, as a result of the highly respected efforts of the regulators and the policy makers in the sector, which was crowned by the establishment of the Higher Education Accreditation Commission in Jordan in 2007.

We hereby present university presidents, quality assurance officers, faculty members and university staff, the private and the public sector at large, and respectably the regulators and policy makers in the kingdom with this report, and aim at providing higher education stakeholders with historical information that can contribute to the tactful planning and effective enhancement of higher education programs, and share the fruits of this success with those who have dedicated their time, expertise and efforts in bringing this project to success.

Furthermore, we hope that the report encourages the private and the public sector alike to embark on the success of banks in Jordan in funding, supporting and implementing programs that serve as building blocks to enhance the competitiveness of the higher education sector and the labor market in the Hashemite Kingdom of Jordan.

**Ziad Fariz**



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## FOREWORD

By: Ali AG Yaghi

General Manager, Al Hussein Fund for Excellence

I would like to take this opportunity to share with you my humble accumulated experience of over 25 years in the higher education sector and over 10 years of work in quality assurance of higher education in the Kingdom, the region and internationally at large. I have been fortunate to work collaboratively with a considerable number of universities, professors, quality assurance experts, educationalists, regulators and policy makers who all share one common understanding and vision; that a solid, supported and well sustained education system and infrastructure of any country around the world serves as the nucleus for the competitiveness and well being of its nation and all sectors of its economy.


This report provides an assessment of the quality of a considerable number of programmes provided by universities in Jordan. Assessment is the single most important aspect that provides a base line for development and improvement, taking into consideration that “you cannot develop what you cannot assess”. Therefore, I would like to emphasize on the importance of this overview report in terms of paving the way for education practitioners in achieving proper outcome-based development and enhancement of the higher education sector in Jordan.

In the past twenty years, the higher education sector around the world has witnessed vast developments. The Arab region has also successfully accomplished the establishment of 9 national commissions for quality assurance in higher education (QAHE) and 4 regional QAHE networks. Likewise, Jordan has witnessed a rapid pace of developments in its higher education sector in the past 20 years to overcome unprecedented regional challenges. These challenges include competition, availability of financial resources, and input to the higher education system, amongst others.

Quality assurance has become more popular in Jordan during that period, and continues to be at the forefront of the Kingdom’s agenda to enhance our competitiveness and labor market efficiencies. While institutional quality assurance at universities in Jordan serves as a nutshell for the “good governance” of the higher education sector, there is an equal need for departmental and programmes quality assurance, to ensure that beneath the nutshell students, professors, private and public sector employers can gain access to and depend on fruitful experiences, competencies and skills that serve the ever changing market needs and highlight new market potentials.

The HFE since its inception has embarked on quality assurance reviews of academic programmes provided by universities in Jordan to contribute to the overall development of the higher education sector. The report herewith presents modest samples of programmes at a considerable number of faculties in Jordan, including faculty of business, nursing, sciences, and others; thereby representing over 500 higher education programmes provided in the Kingdom at different intervals over the length of ten years.





On another count, the UNDP- RBAS<sup>1</sup> implemented a regional project that has common aims and objectives as those of the HFE Higher Education Program, the project was titled “Enhancement of Quality Assurance and Institutional Planning in Arab Universities”. It is thus worthwhile mentioning herewith some of the common outcomes and results of the HFE assessment reviews and those published by the UNDP-RBAS project.

For instance, the HFE’s overview report and the UNDP-RBAS reports commonly emphasize on the importance of linking the different aspects of the curricula, teaching and learning methods, and assessment methods to the intended learning outcomes of the programmes, thereby ensuring that the knowledge, understanding and skills expected from graduates upon completion of their degrees are attained. The intended learning outcomes should be designed in a manner by which they meet the requirements and surface the hidden potentials of the labor market regionally and internationally. Their design should not be confined to academic circles but should stretch to the needs of all sectors through direct collaboration with major work associations and organizations.

Furthermore, while teaching and learning methods focus on direct lecturing and theoretical concepts, reports indicate that most assessment methods are not equally challenging to all students, as they are based on direct recalling and do not always test the high level skills acquired by students. In many instances professors and faculty members resort to multiple choice questions in order to overcome the problem of large numbers and sections of students.

Higher Education practitioners around the globe are collaborating to change the paradigms of education to one that sheds light on the creativity of nimble minds and the enlightenment of all students so they become job creators rather than job seekers, particularly in the realm of an unprecedented employment challenge witnessed in the region and the world at large.

As you would all agree, Higher Education is recognized as a pathway through which future leaders, scientists, economists, doctors, environmentalists, businessmen and businesswomen and other experts in different sectors construct and shape their future and assist the upcoming generation in shaping their own futures by supporting inventions, new technology, developmental projects and overcoming political, environmental and economic challenges.

Thus, we hope that this overview report provides constructive historical information to researches; quality assurance officers, universities and other stakeholders to further investigate the current challenges, and improvements that were made on the identified weaknesses and strengths in this report, and contribute to the development of strategic plans that further enhance the higher education sector in Jordan.

We look forward to your valued input.

**Ali AG Yaghi**

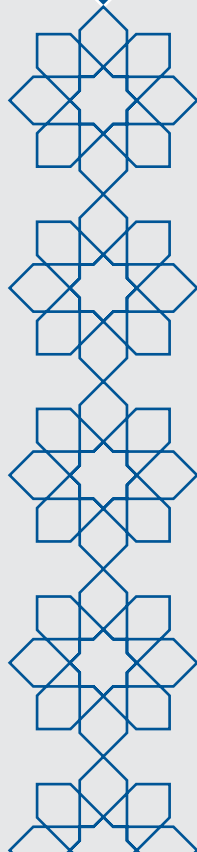
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1 UNDP-RBAS: United Nations Development Programme – Regional Bureau for Arab States





## INTRODUCTION







## Al Hussein Fund for Excellence (HFE)

The HFE was established in 1999 under the patronage of His Majesty King Abdullah II Bin Al Hussein, as a non-for-profit organization funded by the banking community in Jordan in response to their social responsibility commitments. Since its establishment and as per its mandate, the HFE's mission and objectives focused on promoting excellence, encouraging innovation and endorsing sustainable development by planning and implementing projects and programs that address the following aims and ambitions:

- Contributing to the improvement and enhancement of the quality of higher education programmes at higher education institutions.
- Supporting institutional and individual research.
- Supporting technology transfer projects to enhance the national competitiveness of the Kingdom and sustain development.
- Supporting publications that are in line with the HFE's objectives.

The overall management of the HFE is governed by a Board of Directors elected by the Fund's General Assembly, a body that represents the Banking community in Jordan. The HFE's Board of Directors is comprised of six-members and chaired by the Governor of the Central Bank of Jordan.

The HFE's financial statements are audited by external auditors and presented annually to the Board of Directors for final approval against the HFE's approved project plans. During its establishment in 2000, the HFE formed a consultancy committee comprising of former Ministers, Academics, practitioners in higher education, as well as those concerned with and interested in contributing to the enhancement of the higher education sector in Jordan (the committee was concluded in 2005). During that period, the consultancy committee developed a tactful and concise plan that consisted of projects and activities addressing the HFE's vision and objectives. The first pioneering program that was suggested by the committee was a program that aimed at assessing the quality of higher education programmes provided by Higher Education Institutions in Jordan. The HFE has accomplished a great deal of success by implementing the program due to its novelty and significance in Jordan and the Arab region at large at that time.

A very similar project was launched in 2001 by the United Nations Development Program (UNDP). The project "Enhancement of Quality Assurance and Institutional Planning in Arab Universities (EQUAIP)" was sponsored by the Regional Bureau for Arab States (RBAS) and aimed at assessing and enhancing the quality of academic programs in universities of the Arab region at large. The HFE was the first NGO in Jordan and the region to carry the baton of success for a program that focused on the top notch concepts, criteria and methodology of quality assurance that were adopted by the Quality Assurance Agency in Higher Education (QAA) in the UK.





## **A Brief on the Development of the Higher Education Sector in Jordan**

The first university to be established in Jordan was University of Jordan in 1962, followed by the establishment of Al Yarmouk University in Irbid in 1976. Mutah University was then established in Karak in 1981 followed by the University of Science and technology in Irbid comprising of colleges of science and technology that were originally part of Al Yarmouk University. Subsequently, a number of public universities were established in different consecutive years across the Kingdom, thereby representing over 10 public universities as of date.

On another count, in terms of the legal and legislative aspects of the higher education sector in Jordan, the first “Law of Higher Education” was issued in 1980 and was followed by the establishment of the Higher Education Council (HEC) in 1982. In 1985, the Ministry of Higher Education and Scientific Research was established and the Law of Higher Education No. (28) for the year 1985 was issued to identify the goals of the higher education sector, as well as the authority and responsibilities of both the Ministry and the Higher Education Council and their relationship with Higher Education Institutions in the Kingdom.

In 1989 the “Law of Private Higher Education Institutions” was issued, thereby permitting the establishment of private higher education institutions. The first Private University was then established in Jordan in 1990, followed by the establishment of 20 private universities during the past 21 years.

In 1998, the Ministry of Higher Education was abolished and replaced by the Council of Higher Education by virtue of the Law of Higher Education No.(6) for the year 1998 and according to which all Jordanian community colleges were affiliated to Al Balqa’ Applied University.

In year 2000, the Ministry of Higher Education and Scientific Research was re-established by Royal Decree, assuming the responsibility of supervising and having control over public and private higher education institutions, this in addition to promoting the quality of higher education in Jordan to be in line with the developments witnessed in the higher education sector around the world at large, the humanitarian and market needs, as well as the overall expectations and competitiveness of the Kingdom.

Furthermore, Law No. (20) was issued in 2007, whereby the Higher Education Accreditation Commission (HEAC) was established as a financially and administratively independent regulatory body that assumes the responsibility and authority of enhancing the quality of higher education in Jordan, by developing criteria that is in line with internationally recognized best practices and criteria adopted around the world. This was followed by the issuing of a new Law no. (23) for year 2009 in adjustment to the Law (20) of the HEAC in 2007, whereby the HEAC assumed the responsibility of developing criteria for the accreditation and quality assurance of higher education institutions and programmes in Jordan, and monitoring the extent to which higher education institutions in Jordan abide by the rules, regulations and directives of the HEAC in terms of the quality of programmes, quality assurance





requirements and the quality of programmes' outcomes.

The accreditation of higher education institutions in Jordan comprises of: 1) Institutional accreditation and 2) Programme Accreditation for each degree provided by the institution according to a set of quantitative requirements set by the HEAC. The accreditation process was usually managed by a committee formed by the Higher Education Council and were comprised of faculty members selected from a variety of universities in Jordan. The committee visited the university and the related departments to investigate both the human and physical resources made available by the university to deliver the programme. Subsequently, the committee then submitted to the HEAC a report including their findings and recommendations for authentication, approval and final decision.

During 2009, the HEAC issued a “Guide for Quality Assurance Criteria and Procedures at Higher Education Institutions in Jordan”, whereby the HEAC set 12 criteria for quality assurance in higher education institutions. Additionally, the HEAC issued a “Guide for Self-Assessment of Quality Assurance at Higher Education Institutions in Jordan” which comprises of the procedures and templates that aid institutions in writing their self-evaluation reports.

## **HFE methodology and criteria for assessing the quality of academic Programmes**

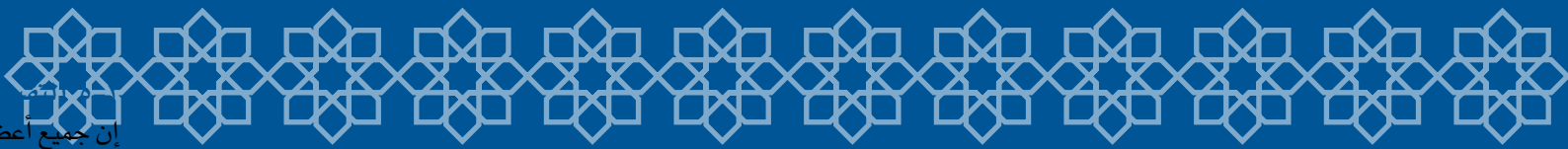
In 2002 and as the HFE adopted the higher education program with the aim of conducting quality assessment and contributing to the enhancement of Higher Education programmes provided by universities in Jordan, the HFE signed a cooperation agreement with the Quality Assurance Agency in Higher Education (QAA) in the United Kingdom, a leading and a highly respected agency in quality assessments of higher education programmes.

As per the Agreement, QAA experts assisted the HFE in developing and adopting criteria and methodology for assessing the quality of higher education programmes in Jordan. The criteria and methodology were largely based on those adopted by the QAA in the UK with minor changes customized to meet the developmental needs of the higher education sector in Jordan. The HFE adopted the following criteria:

- Curriculum Design, Content and Organization (CDCO)
- Teaching, Learning and Assessment (TLA)
- Student Progression and Achievement (SPA)
- Student Support and Guidance (SSG)
- Learning Resources (LR)
- The Effectiveness of Quality Management and Enhancement (EQME)

An evident difference between the criteria that were adopted by the HFE and that of the QAA is in the aspect of “Programme Aims and Intended Learning Outcomes”. Since this aspect was new to higher education institutions in Jordan, HFE management and consultants decided that subject reviewers would investigate the status of the aspect in the reviewed institutions and provide their






recommendations without issuing a final judgment.

In 2005, the HFE published a “Subject Review Handbook” in Arabic and English languages. The review handbook consists of the quality assurance review criteria adopted by the HFE in addition to templates that participating universities and subject reviewers can refer to during the review process.

The main features of the subject review method can be summarized as follows:

1. Inviting universities to participate (voluntarily) in the review cycle.
2. Requesting universities to nominate programme representatives and university coordinators.
3. Conducting a training workshop to provide the universities’ representatives with an insight to the review methodology, self evaluation process and the writing of the self-evaluation report for their programmes according to the assessment criteria adopted and issued by the HFE.
4. Inviting international experts to conduct a quality review of the participating programmes (external peer review) according to the HFE criteria. The experts are first provided with a copy of the self evaluation report submitted by each participating university, which is then followed by a review visit of 3 days in which experts scrutinize evidences on the viability and accuracy of the self evaluation report. Review experts (peer reviewers), during their visit, scrutinize evidences of learning and teaching resources that are made available to students and faculty members alike, investigate the quality of programme delivery and facilities supporting the programme; such as lecture rooms, laboratories, workshops as well as libraries. Moreover, they conduct interviews with faculty members, administrators, students enrolled in the programme, employers and stakeholders that are directly impacted with the programme.
5. Upon completion of the site visit, reviewers provide comprehensive reports of their findings. Each report includes an insight to points of strength and good practices that are evident in the reviewed programme and sheds light on points of weakness that require improvement on behalf of the university. Additionally the reports include recommendations and suggestions provided by the reviewers for further enhancement of the programme.
6. The reviewers are then invited to a moderation meeting to discuss their findings and approve the final judgments, as well as discuss the programme weaknesses and strengths. As a result, the experts provide the HFE with a final report on the quality of each assessed academic programme and nominate the programme that excelled in the full aspects of the provision to receive Al Hussein Award for Excellence. Subsequently, the HFE provides the president’s office of each participating university, in confidence; with a report on the quality of its participating programme.
7. The HFE’s consultant for the review cycle, an expert in the subject matter, then provides the HFE with a summative report which includes; a summary of the findings of the reviewers, the cumulative results of the individual programme reviews, the results of the overall programme review cycle of all participating universities, points of strengths and evidence of good quality practices found in the programmes that deserve dissemination amongst other universities for their consideration and future implementation. The report also sheds light on the points of weakness that require further attention, enhancement and development on behalf of all participating programmes and universities.





The HFE was dedicated in the programme review process to work hand in hand with universities' presidents, quality assurance officers and programme representatives to achieve capacity building, significantly in quality assurance of academic programmes amongst a considerable number of higher education institutions in the kingdom and to transfer knowledge of internationally recognized and adopted criteria in quality assurance within the sector.

## **Programme reviews**

The HFE completed 9 review cycles in which 83 programmes in 7 different academic disciplines from 17 different Jordanian universities and 7 intermediate (community) colleges were reviewed. Review cycles included:

- Computer Science (Round 1), Academic Year 2001/2002, in 10 universities.
- Computer Science (Round 2), Academic Year 2003/2004, in 8 universities.
- Business Administration (Round 1), Academic Year 2004, in 7 universities.
- Business Administration (Round 2), Academic Year 2005, in 5 universities.
- Law, Academic Year 2006, in 8 universities.
- Nursing, Academic Year 2006, in 6 universities and 7 community colleges.
- Accounting, Academic Year 2006, in 11 universities.
- English Language and Literature, Academic Year 2008, in 10 universities.
- Banking and Finance, Academic Year 2008, in 11 universities.

As mentioned above, the HFE in its quest to promote excellence amongst universities in Jordan, presented universities that obtained the highest scores in the review process and excelled in the quality of their higher education programmes with “Al Hussein Award for Excellence”, which consisted of a trophy and a financial award. The HFE commends universities that received Al Hussein Award for dedicating the financial award to students in need.

## **Other projects conducted by the HFE**

Since its inception, the HFE has focused on programs that aim at enhancing the quality of higher education in Jordan. Nevertheless, the HFE was also dedicated to support other capacity building projects and programs that contribute to the overall competitiveness of the higher education sector and labour market efficiencies of the Kingdom. The projects and programs can be summarized in the following;

### **Consultative workshop on quality assurance of higher education in Jordan**

In 2003, the HFE conducted a two day workshop to open a dialogue and discuss the need for developing a tactful, comprehensive and independent system for quality assurance of higher education institutions in Jordan, in addition to bridging the gap between the intended learning outcomes of higher education provisions in the kingdom with the needs of the market, and equip students with





transferable and cognitive skills so that they meet the ever changing needs of the market place upon their completion of their higher education degrees. The workshop also emphasized on the importance of involving the largest number of stakeholders and the public and private sector to assess and enhance the quality of higher education programmes. Additionally, and amongst the most important outcomes of the workshop was the recommendation to establish an “independent council for quality assurance” that works in cooperation with the Ministry of Higher Education and Scientific Research to promote and enhance the quality of higher education programmes and institutions in Jordan.

The workshop was attended by over 30 private and public sector representatives, including; the Ministry of Higher Education and Scientific Research, the Ministry of Education, representatives of a considerable number of ministries in Jordan, representatives of companies from civil society and representatives of universities in Jordan. Additionally, the workshop was attended by international and local experts in quality assurance from a significant number of NGOs and quality assurance agencies as well as Foreign Embassies.

### **Strategic Planning and Quality Assurance**

The HFE developed a “Strategic Planning and Quality Assurance” program in which 18 universities (private and public) voluntarily participated. The program adopted internationally recognized strategic planning objectives and components, and comprised of 2 consecutive phases that were implemented in cooperation with the Center for Quality Assurance in International Education, Washington – USA. Phase 1 consisted of a workshop on strategic planning for universities in Jordan (conducted in year 2007) followed by Phase 2 which consisted of a strategic planning assessment review for the participating universities (conducted in 2008). At the final stages of the program, participating universities were provided with summative and individual review reports that included recommendations on behalf of the experts to enhance the participating universities’ strategic plans and develop enhancement plans that are in line with internationally recognized standards in strategic planning.

### **Supporting universities’ workshops**

The HFE provided financial and technical support to universities that showed keen interest in building their capacities in the different aspects of quality assurance of higher education at their universities and Jordanian universities at large. The key concept being that universities in Jordan work jointly in workshops to enhance the competitiveness of the higher education sector and improve the labor market efficiency of the Kingdom.

### **Supporting universities’ QA offices**

In admiration of the efforts made by universities in Jordan to establish quality assurance offices at their campuses; the HFE (during years 2006-2007) provided its support by supplying over 20 universities with computers and other equipment for their QA offices.

### **Supporting projects in the Education Sector (Schools)**

- Financial sponsorship of a number of students (from different provinces in Jordan) at the Jubilee School (2001).





- Sponsoring Jordan's participation in the International Science Olympiads (2001).
- Sponsoring Jordan's participation in the International Olympiad of Mathematics (2001).
- Sponsoring Jordan's participation in the International Physics Olympiad (2001).
- Providing support to Princess Muna Fund for Nursing Students (2006).
- Sponsoring Jordan's participation in the Asian Physics Olympiad (2006).

### **A workshop on Teaching Learning and Assessment in Higher Education**

In November 2010, the HFE conducted in collaboration with the Ministry of Higher Education and Scientific research a workshop on "Teaching, Learning and Assessment in Higher Education". The workshop was lead and provided by consultants from Pembroke College - Oxford University, Oxford Learning Center in the United Kingdom and University of Sydney in Australia. The two days workshop was attended by over 60 faculty members from 25 different universities across the kingdom.

### **The HFE Subject review handbook titled "Quality Assessment and Enhancement for Higher Education in Jordan"**

The HFE Subject Review Handbook formed the basis for the review process in the past ten years of the HFE's implementation of the higher education program in Jordan. The review criteria published by the HFE in 2005 was based on those adopted by the Quality Assurance Agency in higher education in the United Kingdom during year 2000.


This endeavour was further enforced by the unprecedented changes that were witnessed in the higher education sector around the world. The HFE found it vital to continue in its efforts to support capacity building initiatives in quality assurance of higher education in the Kingdom and to further enhance the HFE handbook 2005 to project the quality assurance developments, criteria, methodology and meet the current and future needs of the higher education sector. Thus the HFE developed the Handbook 2011 and it is currently being finalized for publication and dissemination amongst different stakeholders across Jordan.

## **This Report**

The subject review reports that were submitted by the chair reviewers at the end of each review cycle provided an insight to the points of strength and shed light on the weaknesses of the assessed academic programmes. The chair reviewers highlighted the importance of disseminating this information amongst universities in Jordan to develop enhancement plans that can augment the quality of the assessed programmes and other programmes across the Kingdom. The reports also included an insight to the challenges and obstacles that were encountered by the reviewers during the review cycles and the manner by which the reviewers were able to overcome these challenges and minimize obstacles.

This "Overview Report" comprises of an accumulation of the overview reports provided by the reviewers upon the completion of the review cycles. The HFE has made all efforts possible to revise and edit the overview report to ensure that all information relating to individual universities remain in confidence.





The report aims at providing researchers, higher education practitioners and stakeholders of the higher education sector in Jordan with a platform through which they can further investigate the recommendations and findings of the reviewers and the viability of such information in comparison with the current status of the higher education sector in Jordan and to shed light on areas that require bold decisions for improvement. We thus hope that the report is read along these objectives.

The HFE's primary aim is to assist universities in enhancing the quality of their academic programmes, commending the strengths and flagging the weaknesses that require bold decisions and actions on behalf of universities and the higher education sector at large. The HFE has made all efforts possible to refrain from explicitly mentioning any university's weaknesses of its programmes. Nevertheless, the HFE explicitly commended the efforts of universities that have adopted good quality practices that were worthy of mentioning by name.

The subject review reports and the overview reports issued at the end of each cycle ranked the universities programmes according to the points that have been attained by the participating universities as per the HFE quality assurance criteria. Nevertheless, the HFE for the same reason mentioned above cancelled the section which ranks universities programmes, taking into consideration that universities across the kingdom participated voluntarily to enhance the quality of their higher education programmes rather than to compete for Al Hussein Award for Excellence.

We do hope that the report is read in line with the regulations, legislations and developments that have been witnessed in the higher education sector in the kingdom over the past 10 years, in addition to, the fast pace of developments that have occurred on the concepts of quality assurance of higher education that were crowned by the establishment of the Higher Education Accreditation Commission in Jordan.

It is important to note that the HFE conducted 9 review cycles; five of them (Computer Science - Round 1, Computer Science - Round 2, Business Administration - Round 1, Business Administration - Round 2, and Law) were conducted in cooperation with experts from the Quality Assurance Agency in Higher Education (QAA) in the United Kingdom. The latter 4 cycles (Nursing, Accounting, English Language and Literature and Banking & Finance) were conducted in cooperation with the Center for Quality Assurance in International Education (CQAIE) in the United States. Although the HFE used the same criteria issued in its Handbook 2005 to implement the review cycles, there is evidence of some differences in the construction of the reports by consultants from both agencies as a result of the difference between the American and British schools of quality assurance. Nevertheless, these differences continued to serve the primary purpose of the review cycle; to enhance the quality of higher education programmes in Jordan so that it is in line with international standards.

## Acknowledgments

On behalf of the HFE team, we would like to express our sincere gratitude for the great deal of investments made by the Banking Sector in Jordan in their quest to contribute to the development and competitiveness of the higher education sector in Jordan. The HFE values the efforts made by





their Excellencies former consecutive chairmen of the HFE and governors of the Central Bank of Jordan including: HE Dr. Ziad Fariz (1999-2000), HE Dr. Umayya Toukan (2001-2010), HE Faris Sharaf (2010-2011), HE “Mohammed Said” Shahin (2011-2012) and the HFE’s current Head of the Board of Directors HE Dr. Ziad Fariz. Moreover, the HFE is highly appreciative of the efforts made by the former consecutive members of the HFE Board of Directors since its establishment in 2000.

The HFE has worked, since its inception, with quality assurance experts and agencies, higher education practitioners, program managers, universities, entities from the private and public sector including the banking sector of Jordan to implement the HFE’s Higher Education program. The HFE and higher education practitioners have thus achieved a great deal of accomplishments as a result of this cooperation whilst implementing quality review cycles and reaped the fruits of an endeavour that aimed at serving the quality assurance needs of the higher education sector in the kingdom. Thus we would like to take this opportunity to commend and sincerely thank all parties that have contributed to these review cycles.

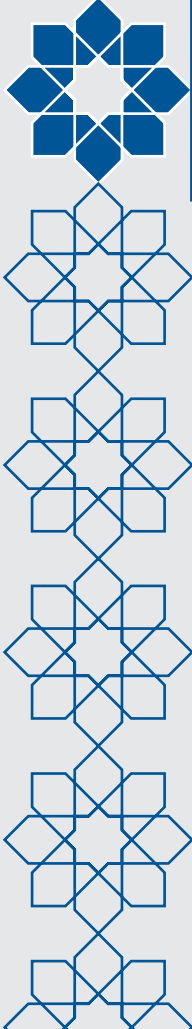
We would, also, like to sincerely thank the Quality Assurance Agency in Higher Education (QAA) from the United Kingdom and the Center for Quality Assurance in International Education (CQAIE) from the USA and all reviewers from both agencies that have worked closely with the HFE and that have contributed with their technical expertise and perseverance to bring the HFE higher education program to its success. Furthermore, we would like to thank all Universities, university presidents, quality assurance officers and faculty members that have cooperated with the HFE, and have shown keen interest to enhance the quality of their higher education programmes in the past years. Their evident commitment was reflected in their attendance of all capacity building workshops, writing of the self evaluation reports, hosting the review visits and welcoming the judgments and recommendations of the subject reviewers whilst assessing their programmes, and their commitment to revise and translate the overview reports when necessary were all a gesture of true determination to enhance the quality of higher education in Jordan.

Finally, this overview report is an accumulation of all the efforts made by previous HFE management and team members, thus we would like to commend their efforts and express our sincere appreciation for their leading work.

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# Quality Assessment of Computer Science Programmes in Ten (10) Jordanian Universities

## **Subject Overview Report**

**Prepared by:**  
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September 2001





## 1. Quality assessment of Computer Science (Round 1)

During year 2001, Al Hussein Fund for Excellence (“HFE”) conducted a pilot review cycle of the Computer Science provisions at 10 Jordanian universities. The HFE was established in 1999 with the mission of promoting excellence, encouraging innovation and endorsing sustainable development in the Hashemite Kingdom of Jordan. The method was based on an agreed mixture of academic reviews and subject reviews as defined by the Quality Assurance Agency (QAA) for Higher Education of the United Kingdom and was adapted to suit local needs. Self-assessment documents were prepared by the universities according to the guidelines published by the HFE, in addition to the extensive use of QAA handbooks for subject and academic reviews. The individual computer science review reports together with the outcomes of the review meetings undertaken in Jordan during the visits form the basis of this overview report.

The HFE specifically asked the reviewers, after the reviews had been completed, to compare and contrast the quality of the taught educational provision with that found at institutions outside Jordan, particularly in North America and the UK. Such comparisons can be challenging, as one is not always comparing like with like; however, the review chairs have included such comparisons where it was felt to be useful and at least reasonably secure. In most cases the comparisons are with UK institutions, taking into consideration that the reviewers’ experience is largely within the UK higher education environment and the method being used for review is also that of the UK.

The reviewers were also asked to rank the universities in order of merit. The rules for granting the prize insisted that each university had to have two complete cohorts of graduates before it became eligible, and therefore one university on the list in Annex A is excluded. The rules also stated that the winning university had to achieve a total average that adds up to excellent in the quality of its reviewed programme according to the QAA standard in the UK, to be eligible for the prize. The review chairs individually scored each provision using the report on the basis of positive and negative points. Each chair’s scores were then accumulated and the final score of the provision was calculated using an average of all review chair’s scores.

## 2. The main features of the review method

### 2.1 Assessment against Aims and Objectives

While the Higher Education Accreditation Council attempts to ensure a degree of uniformity among the 10 universities taking part in this review, there is nevertheless considerable variation in many aspects of the institution’s provision. In particular, there are considerable differences in size, age and history of the institutions. Half of the universities under review are private and half are public, and each has a degree of autonomy to determine its institutional mission and its specific aims and objectives at subject level.



## 2.2 Assessment of the Student Learning Experience and Student Achievement

Quality assessment examines the wide range of influences that shape the learning experiences and achievements of students. It covers the full breadth of teaching and learning activities, including: some direct observation of classroom/seminar/workshop/laboratory situations, the methods of assessing students' work, students' work and achievements, the curriculum, staff and staff development, the application of resources (library, information technology (IT), equipment), and student support and guidance. This range of activities is captured within a core set of six aspects of provision.

The aspects of provision are:

1. Curriculum Design, Content and Organization
2. Teaching, Learning and Assessment
3. Student Progression and Achievement
4. Student Support and Guidance
5. Learning Resources
6. Quality Management and Enhancement.

## 2.3 Assessment by Peer Review

The reviewers are academic and professional peers in the subject. Most are members of the academic staff of UK universities. Others are drawn from commerce, private practice and the professions.

## 2.4 Combination of Internal and External Processes

The assessment process has several stages:

- The preparation of a self assessment of the subject by the subject provider, based on the provider's own aims and objectives, and as set out in the structure provided by the core set of aspects of provision. A two-and-a-half-day assessment visit carried out by a team of reviewers. Daily review meetings in which all members of all teams participated.
- Quality assessment reports that are sent to the individual universities following the assessment visits. These reports contribute to this subject overview report.
- The award of a prize for the top university subject that achieves an excellent rating.

## 3. Summary of the Computer Science Subject Review Report

Computer science is of direct economic importance to the Kingdom of Jordan. Large companies within the computing sector and many major users of computers are multinational and are therefore able to recruit the best graduates irrespective of their country of origin. Moreover, Jordan's ambition to be a centre of software development excellence implies a need for its developers to be of the highest quality, not just in their ability to write software but also in their ability to engineer software solutions to problems, to undertake the work in a totally professional way and to be aware of the ethical and legal implications of their work. For these reasons, Jordan's universities must offer an education which compares favourably with the best of international practice, and which also maintains strong links





with industry. The reviewers found the overall quality of provision in computer science in Jordan to be acceptable, with all 10 subject-providers reaching the standard which in England would be graded 'approved'.

All institutions aim to provide broad programmes with major specialism in computer science or information systems that can contribute to and are in line with national and regional needs. All programmes aim to provide students with a good theoretical underpinning of the subject and good specialist skills, although these are usually programming skills rather than design-oriented. Intellectual stimulation is a surprising omission from the aims, and few providers mention transferable and higher-order skills explicitly. The accreditation of undergraduate programmes is considered important; the reviewers recognize the beneficial effects of the accreditation process. Nevertheless, the process places challenges on curricular flexibility, innovation and diversity. Curricula are appropriately broad and include strong theoretical underpinning, computer systems, and programming streams; however, the softer aspects of computer science are less well covered and some of the curricula neglect modern aspects of the discipline. There are numerous opportunities for developing individual and team-working skills, and the Graduation Project is an important feature of all provisions. Collectively, institutions face the problem of devising and delivering curricula that stretch the best students while not overloading the weaker ones. The reviewers consider that this is a problem that remains to be solved and believe that there is insufficient challenge in some of the institutions, particularly for the more competent students.


A major strength of the students is their ability to turn concepts into working programmes, which the reviewers believe springs directly from the way the programmes are taught; limited observation of teaching confirms this view. The teaching staff delivered classes that had clearly expressed learning objectives and were well planned. The reviewers believe that a greater variety of teaching methods and greater use of teaching aids would further enhance the students' experience; particularly, by addressing the identified lack of differentiation between students' experiences at early and late stages of their programmes. Overall, assessment of students' work appears to be carried out conscientiously although it is not generally a well-documented process.

Undergraduate progression throughout the programmes is variable. It is clear that some institutions could do more to monitor and record failures, withdrawals and transfers accurately. Although final achievements by undergraduates need to be interpreted with some care, the outcomes are mainly praiseworthy and employers express high regard for computer science graduates.

In general, pastoral support is informal but effective, possibly due to the supportive nature of the Jordanian society. Informal academic support is effective, but this is achieved at too high a cost in staff time. Formal academic support is less secure, mostly because of the academic staff's high workload.

The qualities of Library resources are considerably variable, and there is a need to address the problems in the weaker institutions, possibly by the introduction of more effective liaison between the departments and the libraries, and improved library organization. There is a significant shortfall of qualified staff in general and senior staff in particular, which needs to be addressed urgently. The





quality of accommodation , computers and communications are generally good and improving.

The main elements for the management of quality are in place, although the process could usually be more systematic and better documented. It is possible that the universities could, with advantage, adopt some of the most successful and current UK practices, in particular those of internal reviews at subject level, which are informed by systematically collected data and measured against the departments' objectives.


The breadth of many of the conclusions is such that they may need to be considered at levels ranging from individual departments, through the senior management of universities, to the highest level of policy makers and regulators of higher education.

## **4. Analysis and Evaluation of the Quality of Computer Science**

### **4.1 Introduction**

1. This Overview Report presents the outcomes of the review cycle for computer science programmes provided by universities (listed in Annex A) in Jordan during 2001. . Its main purposes are to highlight positive features, to emphasize potential areas for improvement and to enhance the dissemination of good practice.
2. The assessment of the quality of computer science programmes provided by universities in Jordan was carried out by teams of subject specialist reviewers, who are listed in Annex B. In all cases, the teams reached consensual judgements in light of the individual subject provider's broad aims and the learning objectives set for students. All of the universities were judged to provide a satisfactory learning experience, although there is scope for improvement at every participating institution.
3. Like many other scientific and technological subjects, computer science is of direct economic importance to the Kingdom of Jordan. Large companies within the computing sector and many major users of computers are truly multinational and are therefore able to recruit the best graduates irrespective of their country of origin. For this reason, if no other, Jordan's universities must offer an education which compares favourably with the best of international practices, and which also maintains strong links with industry.
4. Nationally, the computer science provision is based on the North American model, which aims to achieve considerable breadth as well as depth in computer science. Breadth is, in part, achieved by a number of courses that are national requirements, in particular Arabic, English and computer skills. Breadth is also addressed by requiring students to take a number of electives and to study a number of courses that are broadly related to computing but are not from the discipline, for example science, mathematics and management. Depth is achieved in the remaining courses, usually 50 to 60 per cent of the total, which are computing-specific courses. The starting point for most of the programmes is the ACM/IEEE Computing Curricula 1991, although an increasing number of universities are challenging the validity of this as a basis for computer science courses.





One university included a Computer Information Systems programme in its review, and a number of similar programmes are coming on stream in other institutions.

5. Of the 10 universities, one has existed for over 40 years, and the most recent only since 1997. The latter has yet to produce a cohort of graduates. There is also considerable variation in the size of the universities, from the largest at over 20,000 students to the smallest of just over 1,000. The subject providers range in size from a department of 300 undergraduates to one with around 750. Similarly, the faculty numbers vary from eight to 27; however, some of these figures include teaching assistants. Overall, student-staff ratios are extremely difficult to calculate accurately, since many non-computing specialist staff are often included and other areas of work not quantified; whereby the private universities quote figures of approximately 20:1 but the reviewers' calculations suggest a much higher average figure across the sector.

## 4.2 Aims and Objectives


6. In order to make judgements about the quality of the educational provision, the reviewers require that the aims and objectives are clear, unambiguous and capable of summarising the diversity of culture and approach to be found in each institution. More significantly, however, clear aims and a clear identification of the anticipated abilities of graduates helps to clarify the curriculum and its delivery, while measurable objectives provide an institution with defined criteria against which it can judge its own performance and hence manage and enhance academic quality and standards.
7. Most universities quoted parts of their mission statement before setting out their aims. While not all of the aims were of direct relevance to the taught provision, all of the universities identified aims which were sufficiently clear to form the basis for review. In a number of cases, the reviewers felt that a clearer identification of the aims would help the department to define its curriculum. All providers identified the need to provide graduates with a good theoretical underpinning of the subject, a broad knowledge of computer science and an in-depth understanding of the subject that enables their graduates to proceed to a successful career in the IT industry or to postgraduate studies. Most identified explicitly the aim to help Jordan achieve its national goals in IT. Perhaps surprisingly, while most providers identified programming, directly or indirectly, few included the ability to specify, design and test software systems, acquire transferable skills or understand professional issues.
8. Most self-assessments also identified objectives for each provision. The objectives stated were often prerequisites for achieving the aims of the broad subjects offered to students. Nevertheless, during their meetings with the reviewers, a number of institutions identified measureable attributes which graduates of the programme should possess.
9. The reviewers would encourage the departments to further develop explicit aims and objectives for their undergraduate programme and communicate these to both students and staff in a form that clearly illustrates how they relate to the curriculum and its delivery, and that the objectives are used in subject and programme monitoring.



### 4.3 Curriculum Design, Content and Organization

10. Each of the universities provides a degree that covers broad areas in computer science . Such programmes are usually, but not universally, named BSc Computer Science, and in all but one university there is currently a single programme within the review, although a number of new courses have been started and more are planned in some universities. All of the programmes are based on the North American model, which unlike many European models has little notion of progressive academic level; hence course prerequisites are the principal determinant of the order in which courses are studied. The reviewers accept that the overall aim to achieve both breadth and depth can be achieved by careful design using such a structure. However, a number of the reviews identified progression and depth as issues, and that a stronger system of prerequisites is needed to ensure that students achieve depth as well as breadth.
11. The number of credit hours required for the award of a degree generally varies between 125 and 135, although in one case the allocation is 151.
12. Programmes include between 20 and 30 credit hours of university-defined courses. A significant number of the core courses relate to national requirements, for example, Arabic and English. In addition, there are electives, which may usually be chosen from a wide portfolio. Very recently, Computer Skills courses have been added to the national requirement; the reviewers wholeheartedly applaud this initiative which they hope to see become more flexible with time, but they have reservations with regards to the staffing of such courses. This is addressed elsewhere in this report. Such courses meet the intention of introducing breadth into the curriculum and contribute to the attainment of national goals in addition to enhancing essential skills.
13. Programmes also include an average of 25 credit hours that are deemed to support computer science; these courses are commonly faculty requirements. The range of subjects is considerable. While in some cases the courses are sensibly chosen, for example, to cover the main areas needed to ensure that graduates have an awareness of the way in which companies and other organizations work, in others there is a heavy preponderance of mathematics and science that is not necessarily relevant. The reviewers often found it difficult to identify the rationale for the choice of subjects. These issues are particularly significant, in part because of the high proportion of the programmes devoted to them, but also because the more progressive institutions are being required by the Accreditation Council to include in their programmes courses that the institutions consider inappropriate, such as physics; at the same time, the Council may deem unnecessary courses which the institutions consider useful. The reviewers consider that clearer objectives for this set of courses and greater realism with regard to how and where computing is used could lead to graduates who have more relevant knowledge of IT, its applications and its role in industry, while continuing to produce employees who understand the meaning of, and need for, rigour.
14. The relatively large number of non-departmental credits, approaching 50 per cent, reflects the generic aim of Jordan's universities to provide a broad and well-rounded education. However, the reviewers are concerned that the extent of these requirements may be constraining the progressive development of subject-specialist knowledge and depth of understanding. Furthermore, the






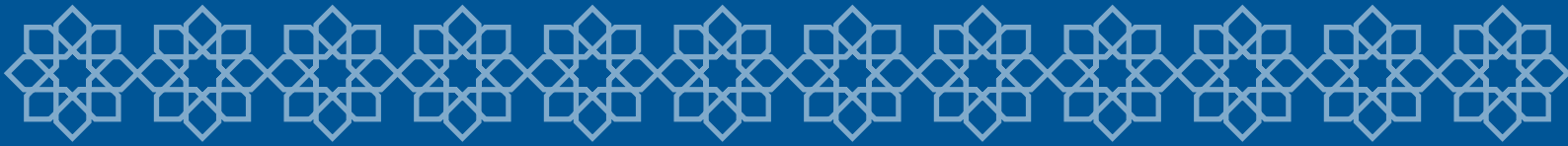
pressure they place on curriculum space may contribute to the frequent omission of essential transferable skills, and professional, legal and ethical issues – all with the potential to contribute to both relevance and breadth.

15. Although almost all of the reports note that the curriculum was updated in 2000 to reflect aspects such as the rapid development in the various fields of computer science, the academic aims of the department and market needs, it was disappointing to find that a new curriculum is ‘based largely around its previous curriculum’, which was based on the principles of the 1991 IEEE/ACM curriculum, itself a backward-looking compromise, and that several reports refer to the curriculum at specific institutions as dated. It is possible that part of the problem is that there is no requirement to seek external specialist advice during the curriculum design process, and even when such advice is taken it is largely internal within the group of public universities. A few institutions have shifted the emphasis on aspects of the provisions; however, changes often focus on the introduction of new technologies, rather than addressing fundamental shifts in the subject or enhancing the research underpinning. The Princess Sumaya University responded positively to the JUSBP consultants and restructured its curriculum, but only within the requirements placed on it by the Accreditation Board. The reviews found evidence of a desire to diversify among the more ‘go-ahead’ institutions and feel that they should be encouraged rather than constrained in order to enhance the richness of the national provision.
16. Computer science is potentially a rich and diverse discipline in which many subfields may flourish and many aims may be achieved. At present, the universities are mainly following one model. Some institutions have moved away from this model, but comparatively few have clear aims and a vision for the future. In most cases, curriculum updates have consisted of tinkering with the details and attempting to graft new technologies onto an unreceptive host. All too often, this has led to situations where very traditional courses on computer systems and system programming dominate the curriculum, and numerical analysis is a mandatory module for what appears to be historical reasons. At the same time, well respected topics such as human computer interaction, software engineering, information-oriented topics, databases, web technology, networking, system analysis, client server computing, internet security, data mining, data warehousing and computer and internet security are omitted or treated in a minimal way. The reviewers would not wish to discourage the teaching of programming, which is one of the great strengths of the national provision in computing; however, there is frequently an overemphasis on teaching programming languages, with the same paradigm being repeated in a different language. Some institutions have changed to C++ or Java but not necessarily dropped the earlier paradigm.
17. The best of the curricula have clear aims and a vision for the future; they have embraced the object-oriented paradigm rather than just adding an object-oriented programming language; they have come to a clear decision on the first programming language, and they have taken on board that good software has to be engineered. Thanks to the influence of the ACM, all have a strong theory stream with Discrete Mathematics providing a sound basis for a number of courses such as Computer Algorithms, Computation Theory, Fundamentals of Programming Languages and Artificial Intelligence. It now remains for the majority of the institutions to follow the lead of the forward-looking, often newer, institutions.



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18. The Graduation Project is obligatory in most universities. It gives students the opportunity to demonstrate both subject-specific and transferable skills, and is a major strength of the overall programme design, although it should be possible that the project carries a greater credit hour rating as it would in the UK. The graduation projects make valuable contributions to the development of transferable skills, in particular, time management, teamwork, presentation-skills and report writing.
  19. Currently, a few universities require students to undertake field training during the summer after they have completed a minimum number of credit hours. These universities use their contacts with local industry to place students in suitable organizations to undertake around 150 hours of training. The main objective is to provide students with the opportunity to put theory into practice. The reviewers consider the use of field training to be a strong feature of these provisions and further consider the idea of linking field training to Graduation Projects when possible to be an example of good practice, which could be widely adopted with advantage.
  20. A significant feature of the curriculum at many institutions is the provision of training activities, which complement the credit bearing courses. These activities include periodic seminars by visiting speakers, which help in establishing the social and industrial context for the subject. They also include training courses (for both staff and students) on various topics, such as the use of specific software packages, which are not actually required for particular courses. Some private universities use this technique to manage the constraints placed on them by the requirements of the accreditation board, and many use them to introduce additional programming languages. A particular example of good practice is the Internet Club at the University of Jordan.
  21. In general, the reviewers consider the use of part-time external experts a strength, as they bring invaluable experience of live projects and current practices to the curriculum; however, their use to coordinate important courses adds fragility. The reviewers encourage more institutions to develop exemplary seminars by speakers from industry who are reputable leaders in the field.
  22. Many of the reviews identify fundamental problems within departments that are hindering or preventing the development of scholarly activity in general and research in particular. The lack of senior staff, staff who are not research-active, the absence of a clear distinction between research and new technologies, high workloads, inappropriately focused research, are examples of such problems. Given the general level of scholarly activity, it is heartening to find that research-active staff have introduced options in their area of expertise, such as distributed computing and parallel processing at one institution, and that some departments are working hard to develop their research profile, and in particular sponsoring conferences.
  23. In general, and acknowledging the staffing problems, the universities need to endorse their potential strengths and focus their scholarly activities, including not only their research but also the design of the curriculum, as this would enable them to strengthen the links between research and teaching at all levels, and therefore enhance the universities ability to fulfil their, and the nation's, academic aspirations.






#### 4.4 Teaching, Learning and Assessment

24. Very few of the universities articulated a teaching strategy, although most had an inherent, if limited, strategy, and one had a well-documented lecturing strategy. At most institutions students can expect two or three hours of traditional lectures each week for each course, supported by practical work, where appropriate, and occasionally student-centered activity such as discussions. There appears to be little variation in this practice, and students in the first year of their programme are generally treated in the same way as those in their final semester. A small number of institutions use tutorials as part of the teaching regime. The reviewers recommend the use of a greater variety of teaching and learning methods, such as tutorials, seminars, workshops and the involvement of external clients in case studies, to encourage a progressively more student-centred and independent learning approach as students progress through their programme and to address differences between stronger and weaker students. This would enable a common strategy of teaching concepts and provides a suitable environment for students to learn to apply the concepts in various contexts independently, as found at the University of Jordan.
25. Class sizes vary considerably, with those in the private universities being generally smaller, whereby lectures in private universities are limited to 40 students and laboratories restricted to 30, or the size of the laboratory. Laboratories are frequently supervised by teaching assistants or laboratory technicians. While splitting large classes is very desirable, there is often a cost in staff loading and occasionally requiring staff to teach outside of their specialism. Courses that attract large numbers of students are usually taught by more than one member of academic staff in a given semester; these situations are generally effectively managed to ensure the quality of teaching, learning and assessment.
26. At many institutions staff is required to provide students with course guides. The best of these guides have learning outcomes that are well matched to the course content, the teaching methodology, assessment strategy and a set of core and supplementary references to academic and technical literature, thereby following a uniform format. Unfortunately, some of the guides are deficient; for example, the depth at which a topic is covered and what is expected from the student are not included. The practice of following a set textbook has advantages; however, it can discourage the students from reading around the subject; a view reinforced by comments from students suggested that they made little or no use of the library.
27. In a small number of institutions, lecture notes are provided for students, and these are sometimes held on websites, which usually provide further online support for students. The reviewers noted that while most such websites are at an early stage of development, they do represent a significant advance in teaching and encourage their wider use. Similarly, there is limited evidence of the use of CDROM based material. The reviewers do not see the use of notes as inconsistent with the notion of the standard text and believe that, if used selectively, they would help to enable diversity and depth in the curriculum. Many departments in the UK have excellent websites, which contain all of the material for each course.



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28. Inevitably in a time-constrained review, the number of classes observed was small and therefore cannot be used to judge the overall quality of teaching. As might be expected, the quality of the classes observed by the reviewers was variable, and while teaching aids are used at a few institutions, all too often students were presented with material on a blackboard which they copy down, or were referred to the set text book. The reviewers consider that the wider use of overhead projectors and whiteboards would help the academic staff convey material in a simpler and more systematic manner and enhance the students' learning experience.
29. A few departments use 'technology enhanced' lectures, and the reviewers saw evidence of this in the teaching sessions they observed, in particular PowerPoint presentations and online software demonstrations that were used effectively to illustrate the material. Jordan University of Science and Technology (JUST) is proposing to develop a 'telecasting' system, to support the teaching of the first-year Computer Skills courses, a development that the reviewers strongly encourage as it could alleviate the identified staffing problem.
30. In most of the observed teaching sessions, the lecturers were enthusiastic and friendly, and the lecturers were well-prepared and resourceful. Where appropriate, the material was placed into the context of previous lectures, and theory was underpinned by practical examples. The students were generally attentive, although the amount of interaction between the lecturer and students was variable. A minority of sessions suffered from minor problems or lacked challenge. The reviewers were generally impressed with the quality of the teaching observed.
31. Most institutions appear to be well-aware of both the advantages and the challenges of using group work. In general, such activities feature within courses as well as being a major vehicle for the graduation project. The benefits to learning are well understood and exploited, particularly in terms of the need for teamwork, report writing, and presentation skills. At some institutions, there is a suitable system in place for recognizing individual effort within group work, while in others the criteria and marking are not sufficiently discriminating, and most students achieve the group average; this is particularly important in the case of graduation projects. The reviewers consider group work to be a strong feature of the work at the universities and applaud the assessment of presentational skills.
32. Students do not always appear to be encouraged to develop as independent learners. For example, laboratory sessions are often highly structured, projects are usually group work oriented and the teaching is oriented solely around the set book. However, the Graduation Project provides the opportunity for independent work, and the reviewers approve of the institutions that allow individual projects, particularly so when they are linked to field training and live situations. In most institutions, each student in a group is required to demonstrate their individual contribution to the project. Most universities provide good guidance for projects, well-organized supervision and thorough assessment. The reviewers encourage the move towards better-documented assessment of the Graduation Project that is being undertaken by some universities.






33. The standard assessment strategy comprises of two incourse tests and an examination at the end of the course, although such schemes are commonly customized and supplemented by other activities. For example, at various institutions students are given homework to complete, one or more tests can be replaced by practical work, students conduct group projects, laboratory work is assessed or a 'term' paper is set. The reviewers consider the Al Albayt University practice of requiring all students in all courses to undertake a research activity to be an example of good practice. The reports note the variation amongst universities in applying the strategy, and while some courses incorporate interesting and relevant activities within a developmental framework, others use the basic scheme with little regard being given to the nature of the course or where it occurs in a student's programme. The reviewers found some evidence of the use of formative assessments, although these were not always marked, and therefore their value was reduced. The reports noted that staff of one University is encouraged to use innovative and creative modes of assessment; they consider this sound advice which should be universally adopted and extended to ensure that the assessment regime for each course is appropriate to measure the learning outcomes of the course and to enable effective learning.
34. The quality of examination papers and other assessments broadly meets the aim of the courses, and there were some examples of good practice. However, many of the final course examination papers consisted of relatively short questions asking for factual answers or mechanistic problem solutions and tested only factual knowledge, effectively relying solely on recall. In some cases, it was unclear how the assessments set were determining the achievement of the stated intended learning outcomes. The reports generally indicate that the academic depth of papers across years is uniform, and there is little material that acknowledges that students have matured during their programmes, and which would further stretch the more able students.
35. The reviewers generally found little evidence of marking schemes or of explicit assessment criteria to be used for the marking of assessments. The quality of marking and feedback to students varies. In a few cases, the marking was transparent and staff provided written feedback to students. In a few others, examination papers have to be solved in class after they have been marked and grades distributed. In general, students confirmed that this individual discussion is a regular and very useful activity. However, providing feedback through individual discussion and class sessions without additional documented feedback makes for poor transparency and poor record keeping.

#### 4.5 Student Progression and Achievement

36. It is clear from the reports that the overall computer science provision is growing at a substantial and apparently increasing rate, and that further growth is expected. Despite this high rate of growth, entry levels are generally, but not universally, being maintained. The reviewers noted that for public universities, admissions are controlled by the Admissions Committee of Jordan's Council of Higher Education, which allocates places on the basis of preferences expressed by applicants and capacity available at universities, while the private universities are outside this system and students have to apply explicitly.




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37. For home students, the public universities can expect their entrants to have attained grades of over 80 per cent in the Tawjihi, often over 90 per cent at JUST and the University of Jordan. In general, the private universities accept students who have performed less well in the Tawjihi. Many set a minimum of around 55 per cent, although most entrants exceed this by a good margin with typically the majority having averages ranging from 65 to 80 per cent, although in at least one case the overall average is nearly 80 per cent. In general, the home students are well-qualified on entry, and some universities are fortunate in having students of the highest quality who are directly comparable to the best anywhere in the world. The ratio of male to female applicants is not usually reported, but it is clear that females are not disadvantaged when applying for computer science places.
38. In addition to home school graduates, most institutions have quotas for special groups including foreign students, part-time evening students, military students, those from the community colleges, disabled students, and those transferring into programmes from elsewhere in the institution or another institution. While it is difficult to generalize about the entry qualifications of these students, they do tend to have lower averages at high school, and one public university takes a special quota of underachievers in the Tawjihi ( half of its entrants ).
39. Progression is reviewed each semester. Students must achieve a mark of 60 per cent in a course to be awarded the credit hours for it, and they must maintain an average mark of 60 per cent over all courses taken in order to remain on the programme. Failing students are given one semester to recover. A student who continues to fail is then given a warning to improve in the next semester. If improvement does not occur, the student is then asked to leave. Many of the courses act as prerequisites for others to be taken later, and students must have been awarded the credits for the relevant courses in order to meet these prerequisites. The reviewers consider this scheme good practice.
40. Programmes are typically designed to be completed in eight semesters, although the actual time taken can occasionally be shorter or more usually longer. The practice of students withdrawing from a course before the second midterm assessment, if they are not doing well, may contribute to programme extensions. The regulations are such that students can still gain full credit when they retake and pass the course, although they may not have the necessary prerequisites for other courses in the following semesters. Some reports express concern over the average 30 per cent (some suggest a much higher figure) of entrants who do not complete in the nominal time, although on balance the increased flexibility of the regulations probably outweighs the disadvantages.
41. The universities' experience with special groups of students is variable. One institution's experience with students who have studied at a community college is very positive, while their experience with those from the international programme is much less satisfactory; also the reviewers accepted that where institutions cater for evening students, the number completing on time will be lower than for full-time students.





42. The reviewers estimate that between 20 and 30 per cent of students do not complete their programmes, and this is of concern. There is also some evidence that these rates are deteriorating. The various institutions attribute this deterioration to factors including the growing numbers of students overall in computer science, the number of students admitted through the special programmes, students being admitted with minimal entry qualifications who were not prepared for university-level study and the transfer of good students to other institutions. However, there was little data available to support any of these suggestions. The various universities have quite different practices with regard to maintaining records of student progression and dropout rates. The best of the institutions hold accurate information that had clearly informed their activities, while others had little information and did not appear to regard measurement of performance as important. The reviewers suggest that measuring progression and attrition among the various groups of students is important, and that this is a situation where the National Accreditation Council could usefully provide a standard for all universities, possibly using a flowchart model such as that commonly used for engineering accreditation in the UK.
43. In order to help improve retention rates, attendance is required at lectures, practical sessions are monitored formally, and student assessment results are discussed within the departmental councils at the end of each semester. Various departments have put in place positive measures to address the problem including: timetabled office hours for staff, academic tutorial groups and the availability of the department chair to counsel students during admission and registration periods. Verbal or written warnings may be issued to students regarding attendance problems.
44. The graduation profile for most institutions is skewed towards the good/satisfactory groups with relatively few students gaining excellent or very good, but a substantial number, in some cases over 50 per cent, gaining a pass. The reports indicate a number of concerns, regarding skewed profiles suggesting insufficient discrimination, but perhaps more seriously suggesting that a significant proportion of the students are not maintaining the level of achievement that they had reached at high school. While it is dangerous to assume that high school performance is always a good indicator of university performance, when taken in conjunction with reported shortcomings in curriculum design, teaching, learning, assessment and academic support the situation merits further exploration.
45. The reviewers examined student work at each of the universities. Two of the reports note that work is typically of a high theoretical and technical standard, and students are clearly able to apply concepts well, and that some Graduation Projects were based on challenging concepts; however, too many noted little evidence of background research even in the Graduation Projects and final year coursework, low academic depth or lack of challenge. Most of the student projects and coursework sampled reflected the emphasis on implementation and practical skills in the programmes. However, the student work scrutinized suggests that the programmes should be strengthened by looking at how the inquiring, critical, evaluative and reflective aspects of the curriculum can be incorporated into the tasks that students are asked to perform and how they will be assessed.




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46. Although Graduation Projects are viewed as applications-oriented rather than research-oriented, there remains a need to demonstrate those skills which identify a graduate from a nongraduate, in particular, the ability to use primary and secondary sources, correctly cite referencing and write reports which demonstrate that the higher order skills of analysis, synthesis and evaluation have been applied. Many reviews note that such skills are not evident although the projects incorporated significant amounts of good technical development work. In all but one of the reviews, the projects are viewed as largely software-implementation oriented. The one exception has rather distinct learning outcomes for this course.
47. The reviewers found evidence of students' proficiency in English and commented that students are gaining sufficient competence to read the technical literature in English and to make presentations. The reviewers observed a number of students defending their Graduation Projects; not only were the presentations commendable but the students were receptive to questions. The presentations involved demonstrating the software designed by the student and describing the principles underpinning their work. They appreciated the difficulty of engineering complex software and also understood the process of testing. All of the reviewers were impressed with the students' abilities as programmers, although they often felt that this was at the expense of the earlier and later phases of the software life cycle.
48. As with progression, many institutions do not keep effective and accurate records of the progress of their graduates, rather relying on incomplete and possibly inaccurate anecdotal evidence. In the absence of data, the academic staff generally take the view that finding a job is not a problem for graduates and that most graduates go into applications development; current students were not always as confident about their prospects. Of the few institutions that do collect data in a systematic manner, it appears that possibly as high as 80 per cent of graduates find employment in the computer industry and others take up teaching, laboratory supervision and other jobs. If repeated across the sector, these rates compare favourably with UK institutions. Available data suggests that up to 5 per cent of graduates go on to further study. The new University of Balqa appears to have made a good start on employment with 50 per cent of the first graduating cohort (2001) being spoken for.
49. In conclusion, many self-assessments contain aims that relate to the provision of a broad or comprehensive IT education, and these are largely fulfilled, likewise those concerning meeting current industrial needs. The standard of practical work is high, which provides reasonably good preparation for employment, particularly first jobs. However, the academic standard could be improved by fostering a more critical, evaluative and mature outlook in student work and increasing the level of challenge for the best students. Problems, such as lack of citation in projects, are typical of academic immaturity and are unacceptable professionally. Therefore, the effectiveness of the implementation of aims concerning high academic or international standards and preparation for leadership is more questionable, and there is a need to review the arrangements for assuring academic standards.



#### 4.6 Student Support and Guidance

50. All universities run induction programmes for new students, although the detailed arrangements vary. There would appear to be some advantage to institutions defining clear objectives for these sessions, as in some cases they appear to neglect inducting students into their department and programme. At most institutions new students are presented with a handbook, which usually details the University mission statement, organization structure, student code of conduct, progression and awards, regulations and matters relating to student welfare, but not always programme-specific material. Institutions also use induction to evaluate the students' abilities in key areas, for example, English language, and to determine their future course of study. Handbooks appear to be clear and comprehensive, and induction arrangements are generally satisfactory. None of the reports mentions induction for returning students, although these can be beneficial in specifying the progressive nature of the learning experience, for example, higher order skills and independent learning.
51. The arrangements for providing students with academic guidance about their programmes vary considerably and are generally, but not always, satisfactory. Some institutions provide clear written guidance on the structure of programmes, and a number are transferring such material to their intranet. The reviewers recommend that all institutions provide full written guidance on programmes and courses to students and that they follow the lead of the best universities in Jordan and elsewhere in setting up comprehensive and user-friendly intranet sites. At many institutions, the academic adviser plays a major role in guiding students through their programme.
52. Most institutions allocate new students to an academic adviser during induction, and the adviser normally stays with the student throughout their time at the university. Advisers generally have a pastoral and an academic role, although the academic role appears to be the better understood. The adviser schemes are usually well defined but are not always effective. Many students reported that they only see their advisers to sign off their programme, in part because the advisers are perceived as too busy; an allegation which appears to be well founded given the staff workload at most institutions. In general, students appear to rely on the open-door policy or office hours of staff and staff goodwill, an apparently infinite resource. This situation is not dissimilar to that found in many universities in the UK; unfortunately, it is one which is helpful only to proactive students and which increases rather than decreases the pressure on staff, as they are expected to be available on request. It is possible to define an academic adviser scheme that carries with it a scheduled programme of work, including subject-specific and transferable skills. While such a programme requires staff time, it can have a beneficial effect on retention and reduce the number of ad hoc queries that staff are required to answer.
53. The supportive nature of Jordanian society appears to reduce the need for pastoral support for students, although such support is usually available, normally through the Deanship of Student Affairs. In general, these arrangements appear to be effective. At the University of Jordan, all academic staff are assigned a family of students who meet regularly for social and community activities. This is regarded as a model of good practice and is very effective in providing a supportive environment for students.




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54. Career advice is generally informal rather than being given by professional advisers as is common in the UK. In general, departments make use of their industrial links to secure employment for their graduates. While many students appear to accept this situation, industrial links at most institutions are informal, and these contacts are not always sufficient to enable all students to find employment. Some departments have proposed the establishment of a career guidance unit.

#### 4.7 Learning Resources

55. Arrangements for purchasing, maintaining and upgrading computers vary from institution to institution. In general, major purchases are centrally funded by the university or possibly an outside source such as the World Bank, and possibly in response to an outside stimulus such as the JUSBP visit to the Princess Sumaya University. A significant number of universities have building programmes that are of direct relevance to computer science students. These arrangements generally appear to work well, particularly with regards to the provision of computers.
56. IT provision throughout the universities is generally good with reports quoting ratios of students to computers below 2:1. Such ratios are better than most UK universities. In general, the main provision is high grade PCs, but a number of departments also have Unix-based alternatives. While some of the nonPC equipment did not appear to be heavily used, the reviewers support the concept of giving students experience of diverse equipment and operating systems. Students at two universities reported a shortage of printers, although in both cases reviewers were told that they had arrived to the institution but had yet to be installed; otherwise, the number and range of peripherals appeared to be satisfactory.
57. Support for computing is generally thought to be good; there is often a university computer centre, and most laboratories are supported by a resident supervisor, whose role is to help students with their work and maintain the equipment. Opening hours for computing laboratories are generally much shorter than those in the UK; in many of the private universities, computer laboratories and the library were only open for office hours, roughly 0900 to 1700 hours. Worryingly, this does not appear to bother the students. However, their indifference to this matter may be attributed to the fact that they have their own computers at home.
58. The reports suggest some concerns regarding the organization of computing laboratories at some universities, and there is an underlying feeling that the introduction of Computer Skills and wider use by noncomputing students may be affecting the computer science students' ability to access computers when they need them. At one university, the significant components of the practical work for courses usually need to be worked on in free time rather than in the closed laboratory sessions, and this puts a significant additional load on the laboratory provision.
59. Internet access for students is very variable between the universities. Although most have the necessary internal networking and appropriate connections to the internet, the organization to provide this for students appears to be lagging behind in many institutions. The reviewers were informed in most cases that plans are well advanced to provide internet access. The best universities provide good access to the internet, which is widely used by students to research





their projects and term papers. Such universities also have a developing intranet site offering useful facilities to students. The reviewers consider that internet access is essential to computing students and that good university and departmental websites are a vital part of the life of a modern university.

60. In general, the institutions have all the software needed for their courses, and it appears that previously reported licensing problems have been resolved.
61. The quality of the libraries, both in terms of buildings and book stock, varies greatly. While two universities are acquiring new library buildings in the near future possibly solving the building problem, the book stock problem is as much one of organization and use, as purchasing. Several of the reports note that the book stock is inadequate in some way, usually in terms of the subject coverage and the academic level of many of the books. The reviewers commented that the number of recent academic textbooks in computer science is limited, that much of the stock was dated, that much of the stock relates to software packages, and that some was of doubtful academic quality. They also commented on the difficulty of obtaining a printed catalogue of the computing entries despite repeated requests. At these institutions, students supported these views. At other universities, the reviewers note that libraries are well organized and have a good range of books at appropriate levels. At the latter group of institutions, the reports also portrays that there is an effective mechanisms through which staff can make recommendations for acquisitions. The reviewers suggest that each department develops a policy for purchasing books that reflects their local course objectives, provides coverage at both textbook and advanced levels and provides a range of material in areas which are less central to their provision but might form the basis of imaginative Graduation Projects. They could also reduce the library purchases of software package based texts and provide these in laboratories instead.
62. As with books, the journal situation is variable. Reports illustrate that there are only limited holdings of printed journals available, although these are often supplemented by online editions. Some reports identify appropriate arrangements for obtaining copies of papers from other journals, principally from the British Library and a new deal with ArabLink libraries.
63. The reviewers detected a need for better organization of the book stock and a greater availability of an electronic catalogue system; more than one university has developed such a system in-house. One report complains of poor categorization of books.
64. Perhaps the most worrying feature of the situation with regard to libraries is that many students do not appear to use them, while providers consider that short opening hours are not a problem, reviewers view it as a hurdle to students. Notwithstanding the use of the internet, an academic library should be a repository of refereed knowledge which students make increasing use of as they mature academically during their programme; this, it seems, is all too often not happening. This may be a factor that contributes to the lack of academic depth in some of the students work.



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65. The quality of teaching accommodation seen by the reviewers was fit for purpose; however, a number of reports criticise the lack of simple teaching support equipment such as whiteboards, overhead projectors and data show facilities. As noted elsewhere in this report, the reviewers felt that many classes could have been improved by using such equipment, which cannot happen if it is not available.
66. The reports are universally concerned about the level of staffing at the universities, although they consider it a strength that faculty members are generally appropriately qualified, with everyone from assistant professor and above having PhDs, mainly from universities in the USA and Europe. The first problem is the total number of academic staff available. Reports note estimated student to staff ratios as high as 50:1 and indicate that where ratios as low as 20:1 are quoted, the calculation appears to have ignored significant work areas, or included noncomputing specialist and laboratory supervisors. The second problem is that all too often there is a serious shortage of senior staff. This shortage will become worse as Computer Skills become embedded across the universities and expansion plans take effect.
67. Staffing problems affect all aspects of the students' experience and performance and places disadvantages on the staff themselves. Clearly a lack of time inhibits the academic's ability to undertake scholarly activities and research, and this in turn affects the students because the staff are finding it difficult to keep up-to-date; it also affects the academic's chance of promotion and contributes to the shortage of senior staff. A shortage of staff is also resulting in academics teaching important courses outside of their specialism, restricting the curriculum, leading to dated courses and causing staff to lead too many courses, all of which affect the students' experience, particularly with regard to the breadth of options and academic depth. The reviewers believe that the shortage of academic staff is a serious threat to the maintenance of academic standards, and they have only limited confidence in the ability of a number of institutions to continue to maintain quality and academic standards in this rapidly changing laboratorybased discipline.
68. The reviewers are well aware of the problems of recruiting good staff but believe that the situation can be alleviated by careful organization and improved by the introduction of more advanced training. At present, many of the introductory courses, such as Computer Skills, and also other first year courses are taught by full faculty members. The reviewers suggest that a PhD in computer science is not a necessary prerequisite for teaching word processing and spreadsheet or basic programming; rather, computer specialists should teach their specialism on courses where their specialist knowledge is required.
69. The reviewers also consider that while schemes to send teaching assistants abroad to gain PhDs are laudable and make a significant and important contribution to staffing, there is an urgent need for more fully qualified staff which can only be addressed by the introduction of a local PhD programme. It is doubtful if any one university would have the ability to offer such a programme at present, and suggest that a national centre is needed, initially staffed by experienced researchers from abroad but with staff from many local universities playing roles as supervisory assistants, in the first instance. Such a centre could also house a first-class national computing library.






#### 4.8 Quality Management and Enhancement

70. Departments normally operate within the regulatory framework of the faculty, the university and the Council for Higher Education. Although there is rarely an identifiable quality management system, regulations on specific aspects of university life are often defined and documented, and the processes are sufficiently rigorous for the various senior bodies to have sufficient information to determine if they have confidence in a department's ability to deliver the programmes. In general, the reports indicate clear communication lines between departments and senior bodies, although in some cases the communication appears to be rather one-way.
71. Departmental councils, or boards, are the decision making body with respect to the computer science provision and have overall responsibility for quality management and enhancement. All faculty members in the departments are members of these councils. They meet regularly to discuss, amongst other things, teaching, curriculum issues and student assessment. There is evidence that the department councils contribute significantly to quality management.
72. The private universities are subject to an annual accreditation visit and, in at least one case, run an annual internal review in preparation for this event. The departments have to prepare materials and collect basic data for the accreditation, which involves the university and the department. In the UK, both accreditation and subject review are less frequent, often quinquennial, and many universities have found it helpful to have internal reviews as part of their ongoing quality maintenance and to align them with these external events.
73. There are effective systems throughout the universities to ensure that changes to the curriculum are properly discussed. These range from ongoing discussions at individual level, through formal departmental discussion and approval, to formal approval by the university and the Higher Education Accreditation Council. While the processes for internal review are sufficiently rigorous, the reviewers have concerns regarding the quality of some of the reviews. The intention is to update the curriculum to reflect market needs and advances in the field of computing, taking account of the views of industry and informal consideration of similar programmes in Europe, North America and elsewhere. It does appear that a very narrow view of the discipline reigns, and that this is not in keeping with requirements of the various Western bodies to which some universities aspire for accreditation. This constrained and narrow view of the subject also removes the diversity and therefore the richness of provision found, for example, in Europe.
74. Best practice suggests that each occurrence of a course is reviewed by the department shortly after completion. Each course organizer prepares a summary of the course outcomes, including a statistical analysis of the results and undertakes moderation of the multisection courses. All such reports are considered in detail by the department, and corrective action is taken if necessary. Each such council will have also been presented with a list of students who were expected to complete their programme in the semester and then can approve these students' final results. The outcomes of the departmental council are reported to the university, which is kept informed with regards to the health of the courses and the programmes. The reviewers consider these processes to be simple, informative and effective in monitoring courses and programmes. Most institutions






have processes that are similar but are not necessarily complete. The reviewers recommend the adoption of a national standard based on best practice, including the monitoring of cohort and first destination statistics.

75. Industrial input at Princess Sumaya university and a few other institutions is strong. However, in general, the universities suffer from inadequate external input to two main areas. Firstly, computing is a vocationally oriented subject and input from an industrial advisory council, which can advise on all aspects of a department's work, is a necessity rather than a luxury. Secondly, Jordan is a small country with a comparatively young higher education system. It is the reviewers' contention that all computer science departments need the services of an external adviser, a 'critical friend' who can advise on the maintenance and enhancement of academic standards through, for example, curriculum development, the moderation of examination papers, the processes of constant benchmarking against other international centres and the enhancement of academic standards.
76. The universities monitor student opinion and generally consider such opinion seriously before deciding if action is necessary. Several types of monitoring appear to be used. The reviewers consider the open meetings in which university presidents, and others, expose themselves to unscripted questions from the student body to be a model of good practice. It is, however, not sufficiently focused for all purposes, and many institutions use questionnaires to good effect. In particular, the results of these surveys contribute to the review of courses. A number of universities also have staff/student councils, although these are cross-university bodies. A number of reports identify the need for formal bodies at which students may raise operational issues with respect to their programme to which there will be a formal response. The students' complaints about the library at some institutions are an example of a situation that might need to be raised at such a formal body.
77. There appears to be little uniformity with regard to staff development, particularly with regard to teaching development. In the best cases, new academic staff are assigned a mentor and there is formal higher education teacher training; further training is required particularly if a faculty member is seeking promotion, while in the worst cases it appears that new staff simply start teaching without any support or training. In recent years, teaching has moved on and new lecturers in the UK are now all mentored and trained, resulting in a more imaginative use of materials and technology and a better experience for students. The reviews accept that such training might be beyond the current resources of most universities, but it could be undertaken nationally and, through networking, to establish a center that provide practitioners with a means for introducing current thinking into the university teaching and learning process and act as a platform for sharing the good practice available within the universities. There is little formal peer review of teaching, although some informal review takes place in multisection courses. Training is usually provided for new laboratory supervisors, and this seems to work well. Some departments also arrange courses to update skills as new technologies appear.
78. Universities have guidelines for academic staff promotions that include a consideration of publications, research and teaching and other aspects of academic life. Although the conditions for promotion are not excessive, relatively few faculty appear to reach full professor status, possibly






because of the workload, although other factors may be at work, such as for example, faculty staff at one institution are on one-year contracts, which does not encourage a culture of staff development and promotion.

79. A number of universities clearly consider academic staff development to be of paramount importance and are prepared to invest time and money in pursuit of its goals. New academic staff are often recruited initially as teaching assistants and, provided they are successful, they become eligible for scholarships to undertake a PhD at a university, generally in Europe or the USA. Returning PhD graduates have never worked anywhere other than the sponsoring university, the process is quite slow, and the number of teaching assistants in the pipeline cannot keep up with the projected growth of computer science. Some research-oriented staff development is available, for example, periodic sabbatical leave, attendance at conferences, and encouragement to give internal seminars.
80. In summary, the reviewers found evidence of effective quality structures and systems, and while they are not always consistent, explicit or fully documented, on balance they provide satisfactory systems. The self-assessment documents were generally admirably candid and self-critical and therefore have the potential to form a basis for quality enhancement, unlike many of those produced in the UK. One university has had an external review in recent times and showed itself willing and able to respond quickly to the consultant's recommendations.

#### 4.9 Conclusions

81. The need for Jordan to provide highquality graduates to meet local, regional and international needs requires its universities to provide programmes that compare favourably with international competitors and to maintain strong links with industry. Notwithstanding the criticisms of various aspects of the provision, the reviewers found much to commend in the 10 universities visited, not least the native abilities of the students, their ability to work effectively in a foreign language and their ability to turn concepts into software. Therefore they judge the overall quality to be acceptable and believe that a number of institutions can achieve excellence in the near future with the support of a focused improvement plan. In the longer term, all universities would also benefit from concerted action at a national level to establish a centre and a network for excellence in computer science. In addition to the overall judgements, the individual reports emphasize a number of specific matters:
- a. The reviewers encourage the departments to further develop explicit aims and objectives for their undergraduate programme and communicate these to both students and staff in a form that shows how they relate to the curriculum and its delivery, and that the objectives are used in subject and programme monitoring.
  - b. There is evidence of lack of academic depth at a number of institutions, and the reviewers recommend a stronger system of prerequisites to ensure depth as well as breadth.
  - c. The university's defined courses meet the intention of introducing breadth into the curriculum and contribute to the attainment of national goals in addition to enhancing essential skills. But they could usefully be extended to ensure that all students acquire essential transferable skills.
  - d. The underpinning courses for computing are insufficiently focused at most institutions, and






clearer objectives for this set of courses could lead to graduates who have more relevant knowledge of information technology, its applications and its role in industry, while continuing to produce employees who understand the meaning of, and need for, rigour.

- e. The curriculum at several universities is dated and lacks a clear focus and vision for the future. Updates to the curriculum are often piecemeal; sometimes resulting in less rather than more coherence, and sensible changes are sometimes constrained by accreditation requirements. The reviewers recommend that in the future the accreditation process should be concerned with resources and processes but not with curriculum content only.
- f. Graduation Projects are a strength of the overall provision, and many are imaginative and challenging; however, they do not always demonstrate that the skills that identify a graduate from a nongraduate have been applied. The higher order skills of analysis, synthesis and evaluation were missing from the majority of projects. In particular, they lagged behind in the ability to use primary and secondary sources, correctly cite referencing and write reports.
- g. Field training is a strength and could be more widely used, the idea of linking field training to Graduation Projects when possible can be an example of good practice that could be universally adopted.
- h. The use of training courses that are outside the credit system to address the introduction of industry-specific software and technologies is an example of good practice.
- i. The use of industry to enhance the students' experience is a strength of several provisions.
- j. Teaching strategies are rarely explicit, and there is an insufficient variety of teaching methods, in particular, to address the needs of diverse groups of students such as that between the strongest and weakest and those in their first and final years of study.
- k. The use of course guides is a strength which should be adopted universally, and the institutions are encouraged to follow the lead of other institutions that are developing websites. In doing so, they may wish to look into UK universities that have developed Computer Science departments websites which contain all of the material for each course and programme.
- l. Although it was only a limited sample, many of the staff appear to be gifted teachers.
- m. The widespread use of group work is a major strength that encourages the development of many skills. Best practice in assessing group work should be more widely adopted.
- n. There appears to be little opportunity or encouragement for students to develop as independent learners.
- o. Although discussion of individual work with students is a strength, most aspects of assessment need attention at many universities. In particular: papers often require only mechanistic answers and there is no differentiation as students progress; there is a lack of academic depth; the assessments are not always tuned to assess the achievement of the stated intended learning outcomes; written feedback was often absent; and there was rarely any attempt to provide marking schemes or written criteria.
- p. In general, the quality of home students is competitive, and some universities are fortunate in being able to recruit the most competitive students.
- q. Although many universities have attempted to address the problem, the level of attrition remains quite high on many of the programmes, and frequently insufficient information is collected to allow a systematic analysis of the losses.
- r. In a few institutions, work was of a high theoretical and technical standard, and students are clearly able to apply concepts well; however, in too many institutions there was little evidence of background research even in the Graduation Projects and final year coursework, low academic





depth or lack of challenge. Many students failed to demonstrate an ability to use primary and secondary sources, correctly cite referencing and write reports which demonstrate that the higher order skills of analysis, synthesis and evaluation have been applied.

- s. Student's command of English was generally satisfactory, and they were able to give effective presentations, be receptive to questions and follow the literature.
- t. In general, the reviewers accept that graduates are recruited to relevant jobs and are well thought of in terms of quality and competencies; however, this is to some extent an act of faith on the part of the reviewers, as few institutions collect data in a systematic and reliable manner.
- u. Proactive students are well supported both academically and pastorally; however, more systematic academic support would benefit less proactive students, improve retention rates and alleviate the load on staff.
- v. The quality of the information and communication technology provision is generally high, and students make effective use of the equipment.
- w. The review visits identified significant shortcomings in the library provision at several institutions. The criticisms centre on the book and periodical stock and in a few cases the organization of the library. The reviewers recommend that, in addition to addressing any organizational shortcomings, each department develop a policy for purchasing books that reflects their local course objectives, provide coverage at both textbook and advanced levels and provide a range of material in areas which are less central to their provision but might form the basis of imaginative Graduation Projects.
- x. While the faculty members are well qualified, the number of staff and the number of senior staff are too low to support the provision and meet the aims of providing a scholarly environment in which students and staff reach their full potential. More academic staff are urgently needed.
- y. While all institutions have various processes which contribute to the management of quality, none has a comprehensive, well-documented quality management system.
- z. While there are effective systems throughout the universities to ensure that changes to the curriculum are properly discussed, the reviewers have concerns regarding the quality of some of the curriculum reviews.
- aa. Staff development is clearly important to many universities, and the best are providing opportunities for both teaching and research-oriented activities.

The reviewers were specifically asked by the Hussein Fund for Excellence to draw comparisons with universities elsewhere in the world. While aspects of such a direct comparison are undesirable, the teams were struck by the parallels and differences between the senior universities in Jordan and a group of universities which started in the UK at about the same time as the University of Jordan. Both groups are able to recruit high calibre students, although the Jordan institutions can recruit the best, and the English have to compete with the older, prestigious universities. The English universities had all the advantages of being born into an educationally rich system but also had to compete with universities that had existed for hundreds of years; the Jordanian universities had the advantage of being the only universities in the country and therefore the flagships. Most of this English group were judged excellent in computer science in 1994 and also achieved high rating in the research assessment exercise. The reviewers suggest that to compete against the likes of Warwick, Kent, Essex, Lancaster and similar universities in North America, Australia and other countries, Jordan's leading universities have to address issues such as staffing, recruitment, information resources, the curriculum, strategies for teaching, learning and assessment and the development of transparent quality assurance processes.



## Annexes

### Annex A: Participating Universities in alphabetical order

- Al AlBayt University
- AlAhliyya Amman University
- AlBalqa' University could not be ranked because there were no complete cohorts
- Allsra University
- Jordan University of Science and Technology
- Mu'tah University
- Philadelphia University
- Princess Sumaya University College of Technology
- The University of Jordan
- Zarka Private University

### Annex B: Reviewers

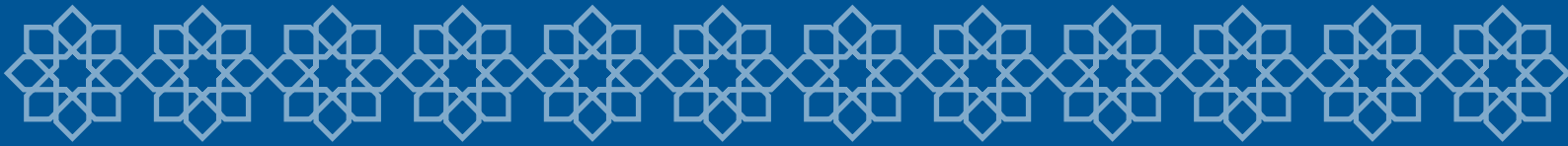
- Miss Lina Basu
- Professor Terence Baylis
- Dr Richard Beeby
- Professor Rod Burgess
- Eur Ing Dr Anthony Cowling
- Professor Rae A. Earnshaw
- Dr Anne James
- Dr. Fairouz Dib Kamareddine
- Professor Dilipkumar Patel
- Professor Sunil Vadera

### General Remark:

In order to provide a guide to an absolute frame of reference, the review chairs informally discussed each university against the English profiling system. For guidance only, the outcomes of this discussion concluded that the top four universities merited grade totals between 17 and 19 points. In England, the universities consider a profile of at least three grade fours and three grade threes (21 points) to be excellent.

The review chairs were extremely reluctant to grade the universities using the 1 to 4 grades of the English system, preferring instead to use half-points; a practice which is common in the English system prior to the final decision. It is on the basis of half-points that the grade-totals of 17 to 19 points were reached. Had the review chairs decided to adhere rigidly to the English system, it is very unlikely that any university's profile would have improved and more likely that the totals of 17 to 19 would have been marginally lower.





It is common practice in the press and in the universities to add six grades together and produce a league table which reflects the reviewer's view of how well the university had met its aims. In this sense, the reviewers have concluded that in all of the universities, including the top four, there is scope for improvement in every aspect. In a number of cases, including a few aspects in the top four universities, this scope is substantial. Each university should now look to the text of its own report to determine what improvements need to be made and to what degree.



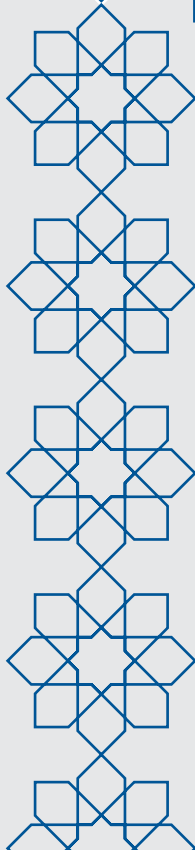


# Quality Assessment of Computer Science Programmes in Eight (8) Jordanian Universities

## Subject Overview Report

**Prepared by:**  
**Terence Baylis and Arthur Brown**  
**(Project Consultants)**

March 2003





## 1. Quality assessment of Computer Science (Round 2)

The Hussein Fund for Excellence (HFE) completed a successful pilot project review of the quality of the Computer Science (CS) programmes of Higher Education (HE) at ten Universities in Jordan in 2001. The first review of the CS programme revealed the benefits of the process and the need to maintain the review process.

A decision was made by the HFE Board of Directors upon the recommendation of its Scientific Consultative committee (SCC) to extend the first pilot project into a second round of reviews in 2003. The decision came as a result of the positive participation of all the Jordanian universities and the desire to maintain the reform process that Computer Science Departments have already participated in during the first round (pilot project) of external reviewers in September 2001. Eight of the original ten universities elected to participate in the current round.

### 1.1 Aims

The aims of undertaking the second round of reviews are as follows:

- to support the processes of continued improvement and sustainability of the quality and standards of education at computer science departments in higher education institutions in Jordan;
- to report on the quality and standards and the progress made since the first reviews conducted in the pilot scheme in 2001;
- to identify the provider who has (a) in the first place achieved the highest rating for quality and standards and (b) in the second place demonstrated real progress and thus has the prospect of sustainable development in quality and standards.

### 1.2 Method


The review method followed in the second round is the same as that used in the pilot Project with minor adjustments to meet the revised outcomes in paragraph 1 above. The review method is based on the subject review method developed and adopted by the Quality Assurance Agency for Higher Education in the UK (QAA) up to December 2001 and available on the QAA's website at [www.qaa.ac.uk](http://www.qaa.ac.uk) under publications Subject Review Handbook September 2000 to December 2001. Self-assessment reports were provided by the universities following the same guidelines used to produce the self-assessments in the first round. The self-evaluation section (part B), taking account of recent developments and that the descriptive parts A and C, will only be re-written if the factual details have changed. A specialized workshop was organized by HFE in collaboration with Quality Assurance Agency for the participants in Amman. The workshop provided information on the method and assisted the representatives of the participating universities who attended in undertaking the review in the most effective manner.

All reviewers and the institutions taking part should be aware of the scheme and the review method and feel confident that it is fair, transparent and workable.

The framework for evaluating and reporting on the quality of the provision consists of the writing of the self-assessment report, conducting the review method and the writing of the subject review report. The framework consists of an introduction, a statement of aims and objectives, six aspects of education and a conclusion. The six aspects are:

- i. Curriculum Design, Content and Organization



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- ii. Teaching, Learning and Assessment
  - iii. Student Progression and Achievement
  - iv. Student Support and Guidance
  - v. Learning Resources
  - vi. Quality Management and Enhancement with Sustainability

In the first round, the subject review reports did not include the grading of each aspect; an overall grade was applied after the visits and presented to the HFE with the overview report. For the second round, the review and the review reports included grading each of the six aspects and creating a profile for each provision. Each aspect is given a grade by the review team on a numerical four-point scale using the criteria described below. In addition, under the aspect on quality management and enhancement, each review team makes an assessment of the progress made since the first report on a four-point scale. The descriptors for the assessment of progress are given below. The criteria for commenting on sustainability are also set out below.

The selection of the prize-winner will be made by the HFE based on the recommendations of the panel of review chairs. The panel will use the rating scales produced by each review team. The profile of the present quality and standards, using six elements with a possible highest grade of 4 per element, will be the primary grading.

One of the key features of the review of the provision in the first round was the interest in, and search for relevant standards in the curriculum for computer science. The method accommodates the steps taken by the Ministry and the institutions to benchmark their Computer Science programmes against the national requirements for accreditation and, in addition, the relevant international academic standards. The discussion on academic standards is focused primarily on the aspects: Curriculum Design, Content and Organization (the curriculum reflects the requirements of the Ministry and current developments in the field), Student Progression and Achievement (the evaluation of attainment against the stated aims and objectives) and Quality Management and Enhancement (the processes in place for the providers to assure themselves that the quality and academic standards are maintained and enhanced).

### 1.3 Grading the aspects of provision

The graded profile shows the extent to which the student learning experience and student achievement demonstrate that the aims and objectives set by the subject provider are being met and progress has been made since 2001. All the aspects in the profile have equal weight. The assignment of the grade for each aspect is a matter for the professional judgement of the reviewers, drawing on the evidence from both the self-assessment and the review visit.

The reviewers recommend the overall strength of the provision for consideration by the HFE Board for the award of the prize. It is expected that a candidate for the prize will demonstrate an acceptable international standard in the majority of the aspects, and its profile will not contain any grades lower than 3. The candidate is also expected to demonstrate progress in enhancing the programmes during the HFE project.





The creation of the graded profile is achieved by applying a grade to each aspect of provision. There are four numerical grades on the scale: 1, 2, 3, and 4 in ascending order of merit.

A grade 4 is awarded when the aspect makes a full contribution to the attainment of the stated learning objectives and the aims are met.

A grade 3 is awarded when the aspect makes a substantial contribution to the attainment of the stated learning objectives but there is scope for improvement. The aims are broadly met. There are recommendations for further improvement.

A grade 2 is awarded when the aspect makes an acceptable contribution to the attainment of the stated learning objectives but there are significant areas that deserve to be addressed. The aims are met in part.

A grade 1 is awarded when the aspect fails to make a significant contribution to the attainment of the stated learning objectives or that the objectives do not provide students with the experiences and achievements that would support a judgement that the aims were being met. Substantial and immediate remedies are recommended.

The review includes an evaluation under “Quality Management and Enhancement” providing judgements on the extent to which the quality of the provision as evidenced is sustainable. Thus, on the balance of probability, the reviewers have confidence that current good practice can be maintained in the foreseeable future. The criteria for this are:

- The provider demonstrates that it has the means to assure the quality of the provision and routinely reports on the quality, including the application of processes to identify any necessary action to improve the quality and to monitor the effectiveness of the action taken.
- The provider engages with key stakeholder groups, including the current students, the employing community and others to ensure the continuing relevance of and confidence in the programmes.
- The provider, in cooperation with the institution and any external funders, has realistic forward plans to sustain the resource base, articulate the academic standards of the programmes and further enhance the quality of the students’ learning opportunities.

The reviewers, in reaching their conclusion on the profile and overall strength of the programmes, will comment on the progress made since the first round. In addressing this, the reviewers will take account of:

- The distance travelled since the first self-assessment in identifying strengths, addressing identified weaknesses and making an impact;
- The processes followed including the robustness of self-evaluation, action planning, reporting and the steps taken to monitor progress.



## 2. Summary of the Computer Science Subject Overview Report

Eight follow-up reviews were conducted in January and February 2003, to examine the activities undertaken and improvements made by the participating universities since round 1 of the computer science subject review 2001-2002), and prepare a new self-evaluation report.

The findings for each review are presented in the eight individual reports and are summarized in annex A, while this report brings together the major features of the provision. Although no participating university achieved full points in all aspects, all of the eight universities were judged to be at least satisfactory and six were judged to be of an acceptable international standard. The HFE considers that among these six there are candidates worthy of an award. Progress in enhancing the quality was reported in all participating universities and two in particular, Philadelphia and Al-Ahliyya Amman University (AAU), are commended on achieving the highest grades in terms of the improvements to their provision since the first round.

The key conclusions identified were as follows:

- a. The international nature of higher education and employment in the field of computer science is such that it would be to the advantage of the universities to cooperate to raise standards to meet external competition;
- b. There is an urgent need to produce programme specifications for all programmes at all universities and to link the intended learning outcomes developed in these specifications to all other aspects of the provision, in particular teaching and learning, assessment, the monitoring of achievement, and securing and sustaining appropriate learning resources and quality assurance processes in general;
- c. The graduates are well able to write software, but their ability to engineer software solutions to problems, to undertake the work in a totally professional way and to be aware of the ethical and legal implications of their work are less assured;
- d. All of the universities have engaged with the curriculum suggested by ACM/IEEE 2001, and some with other external references;
- e. The universities generally continue to find it difficult to monitor progression and employment data and to use such information in the decision-making process;
- f. There is need for more strategic planning with respect to the maintenance of academic standards, resources, in particular staffing, and quality assurance and enhancement;
- g. Assessment frequently fails to assure that all learning outcomes are tested, to differentiate adequately between good and weak students and to test the ability of students to critically evaluate material and formulate solutions on this basis.

The reviewers commend the participating universities for the commitment they demonstrate to implementing improvements and realizing real benefits for the students. They recommend that the participating universities continue to build upon the review process to sustain the development of quality programmes. The concluding recommendations may lend themselves to treatment by individual departments, across a faculty or university, or possibly by concerted action at national level requiring collaboration between the universities and the Ministry of Higher Education and Scientific Research.





### 3. Analysis and Evaluation of the Quality of Computer Science

#### 3.1 Introduction


1. This Overview Report presents the outcomes of the computer science programmes reviews conducted in 2003 to assess the quality of computer science programmes provided by the universities listed in Annex A. Its main purposes are to highlight positive features, to emphasize potential areas for improvement and to enhance the dissemination of good practice. This report also indicates progress over the period of the project by comparing and contrasting the current situation with that at the time of the last review in 2001.
2. The assessment of the quality of the educational provision in computer science was carried out by teams of subject specialist reviewers, who are listed in Annex B. In all cases, the teams reached consensual judgements in the light of the individual subject provider's broad aims and the learning objectives set for students.
3. Like other scientific and technological subjects, computer science is of direct economic importance to the Kingdom of Jordan. Large companies within the computing sector and many major users of computers are truly multinational and are therefore able to recruit the best graduates irrespective of their country of origin. For this reason, if no other, Jordan's universities must offer an education which compares favourably with the best of international practice, and which also maintains strong links with industry. In addition, the Ministry of Higher Education and Research has embarked on a reform programme intended to raise the standards of higher education. The HFE's project is intended to make a significant contribution to the reform programme.
4. Nationally, the computer science provision is based on the North American model, which aims to achieve considerable breadth as well as depth in computer science. The starting point for most of the programmes is now the ACM/IEEE Computing Science Curricula 200 [ACM2001]. Most universities continue to run computer science programmes; however, several institutions also run computer information systems (CIS, or software engineering (SE)) programmes, and three also offer MSc's in Computer Science. Nationally, the provision in the general area of IT appears to be wider than at the time of the last review. In the course of the project, several universities have studied other external reference points, including the subject benchmark statement on academic standards in computer science published by the Quality Assurance Agency (QAA) in the United Kingdom.
5. Of the eight universities, one has existed for over 40 years, and the most recent only since 1991. There is also considerable variation in the size of the universities from the largest at over 25,000 students to the smallest of just over 1,000. The subject providers range in size from a department of 300 undergraduates to one with around 550. Similarly, the faculty numbers vary from eleven to 35; however, some of these figures include teaching assistants. Overall, student - staff ratios continue to be extremely difficult to calculate accurately since many non-computing specialist staff are often included and other areas of work not quantified; the private universities quote figures of approximately 25:1, but the reviewers' calculations continue to suggest a much higher average figure across the sector.



### 3.2 Aims and Objectives

6. The previous subject overview report stated that “In order to make judgements about the quality of educational provision, the reviewers require that the aims and objectives should be clear, unambiguous and capable of summarizing the diversity of culture and approach to be found in each institution. More significantly, however, clear aims and a clear identification of the anticipated abilities of graduates help to clarify the curriculum and its delivery, while measurable objectives provide an institution with defined criteria against which it can judge its own performance and hence manage and enhance academic quality and standards”.
7. While the above quote continues to be true, the international higher education world, in particular in relationship to computer science, has moved on. Major changes to the perceptions of computer science curricula have been introduced by the ACM (ACM 2001) and the QAA in its subject benchmarks. These changes relate not only to curricula content, although this has changed, but also to the requirement for computer science providers to define what their graduates are supposed to know upon completion of their degree. This, coupled with a new freedom to define the programme as the provider sees fit, has provided rich opportunities for universities to specialize their programme, together with greater responsibility and the need for clearer thinking about the curriculum and its delivery. The single most important aspect of these changes is the shift to outcome-related evaluation. Thus review, whatever its form, will in future be concerned primarily with process and outputs, whereas at present it is largely concerned with inputs and process.
8. These changes affect the major universities of all the developed and developing economies, including those in Jordan. Based on the concept of a programme specification, which includes measurable learning outcomes (for example, what it is that the graduate will know and be able to do with respect to programming), the programme is defined in terms of the knowledge and understanding, practical skills, intellectual skills and core skills, and the programme specification contains a detailed definition of where each of the identified knowledge, understanding and skills items is acquired and assessed. In future, this will be of much greater significance as more and more universities around the world move towards precise definitions of what their graduates will know and be able to do.
9. In the recent cycle of programme reviews (follow-up review), most universities quoted parts of their mission statement before setting out their aims. Unfortunately, as in the earlier reviews, not all of the aims were of direct relevance to the taught provision, although most had improved. All of the universities identified aims which were sufficiently clear to form the basis for review, although in a number of cases the reviewers felt that a clearer identification of the aims would help the department to define its curriculum. For example, three providers mention programming in their aims and three also mention state-of-the-art programming tools. However, every one of the eight institutions teaches their students how to programme, not infrequently in several languages, and many include the use of up-to-date platforms such as object-oriented programming, web-based programming, visual programming, event driven programming and API's. A clear aim with regard to programming, together with intended learning outcomes, would enable the provider to specify precisely what courses are needed and what level they should reach. Questions such as ‘why are





you teaching six different programming languages to your students? ' can then be referred directly to the stated aims and intended learning outcomes.

10. All providers identified the need to provide graduates with a good theoretical underpinning of the subject, a broad knowledge of computer science and an in-depth understanding of the subject that enables their graduates to proceed to a successful career in the IT industry or, in only four cases to postgraduate studies. Most identified explicitly the aim to meet national and regional goals in IT. Perhaps surprisingly, while most providers identified programming, directly or indirectly, few included the ability to specify, design and test software systems. Encouragingly, every provider now aims to have its students acquire transferable skills and most to understand professional issues. This is a significant advance on the situation reported in 2001 and is due in no small part to the influence of the HFE pilot reviews.
11. Most self-assessments continue to identify objectives for each provision. The stated objectives were rarely measurable and often took the form of extra aims. In no case were they sufficiently well-defined to allow an outsider to determine what should be taught and to what level. The reviewers strongly recommend that all institutions adopt the output-driven approach and produce programme specifications with intended learning outcomes that articulate with educational aims and individual courses within programmes and that inform the key features of the programme.
12. The following conclusion was directly related to this aspect in the last review.
  - The reviewers encourage the departments to further develop explicit aims and objectives for their undergraduate programme and communicate these to both students and staff in a form that shows how they relate to the curriculum and its delivery, and that the objectives are used in subject and programme monitoring (paragraph 9).

13. The reports identified the following conclusions with respect to this aspect of the provisions:

#### **Strengths and areas of significant improvement**

- Transferable skills, and to a lesser extent graduate skills, are now included in the aims of every provider;
- Ethics and professionalism are now included in the aims of most providers;
- Many important phrases which were largely missing in 2001 have now been added to the aims, for example, academic excellence, intellectual stimulation and creativity.

#### **Weaknesses**


- Aims continue to be very broad, objectives are not measurable and expressions of intended learning outcomes, articulated with the aims, need further development;
- The universities should support the departments and faculties in developing programme specifications.



### 3.3 Curriculum Design, Content and Organization

14. The universities continue to provide broad educations with majors in computer science at seven universities, computer information systems at one, and computer science and computer information systems at one. However, the reports indicate there has been considerable growth in computer information systems and software engineering since 2001, and six of the eight universities now offer more than one programme in the general area of IT. This change has been accompanied by organizational changes, and seven of the eight departments now form part of an IT faculty. The programmes have a limited notion of progressive academic level, with courses being described as introductory, intermediate or advanced; course prerequisites remain the principal determinant of the order in which courses are studied. The reviewers accept that the overall aim to achieve both breadth and depth can be reached by careful design using such a structure. However, a number of the reviews continue to identify progression and depth as issues, and a stronger system of prerequisites is needed to ensure that students achieve depth as well as breadth.
15. The number of credit hours required for the award of a degree is now more homogeneous and varies between 126 and 135, the University that previously required 151 having reduced this requirement. There is some variation in the university credit-hour requirement, now between 21 and 36. The growth of IT faculties has altered the content of faculty requirements, although the number of credit hours remains similar at between 21 and 33.
16. Universities continue to define a mixture of mandatory and elective courses, some of which are national requirements, for example Arabic and English. In general, the electives may be chosen from a wide portfolio. The Computer Skills courses, which had recently been added to the national requirements at the time of the last review, are now embedded within the curriculum. The reports suggest that at least in some cases, these courses have become more flexible with the second course becoming the first of a progressive series of courses on programming for IT-related disciplines, and a terminal programming course, in a different computer language such as Visual Basic, for non-specialists. The reviewers continue to have reservations with regard to the staffing of such courses. This is addressed elsewhere in this report. Such courses continue to provide breadth in the curriculum and contribute to the attainment of national goals in addition to enhancing essential skills.
17. Programmes also include an average of 27 credit hours of faculty, or in one case supporting, requirement. In general, the reports are more positive with regards to these courses than in the previous reviews. In particular, the range of subjects is now considered more appropriate at five of the eight universities, while at one university there remains a need of further consideration. At the remaining two institutions, faculty requirements continue to be dominated by large numbers of hours of traditional mathematics, mainly calculus and linear algebra, and physics, to the extent of over 50 per cent. As noted in the last report, it is difficult to see the rationale for such courses as they fail to address important areas of mathematics, such as computational mathematics, and add little value to a computer scientist. However, more significantly they constrain the remainder of the programme by occupying a large proportion of the curriculum time. This has a direct and undesirable effect on the computer science programmes, since introductory and intermediate






courses have to be pushed back into the third and fourth years when students should more properly be studying advanced courses, and remove the possibility of introducing more advanced and modern topics. At the majority of the universities, faculty requirements are appropriate to computer scientists and continue to broaden their experience by including courses on: project management, report writing, statistics, professional issues and ethics, accounting, discrete mathematics, IT, and information systems. The reviewers remain convinced that clearer intended learning outcomes for this set of courses and greater realism with regard to how and where computing is used could produce graduates who have more relevant knowledge of the applications of IT in industry, while continuing to develop the graduates' understanding of the meaning of, and need for, rigour.

18. The number of non-departmental credit hours, now about 43 per cent, reflects the generic aim of the universities in Jordan to provide a broad and well-rounded education. With the exceptions noted above, the reviewers are less concerned that these requirements constrain the progressive development of subject specialist knowledge and depth of understanding than at the last reviews. It appears that previous HFE reviewers were influential in producing changes to faculty and other requirements which in most cases now include essential transferable skills, together with professional, legal and ethical issues – all with the potential to contribute both relevance and breadth.
19. The previous reports noted that the curriculum was updated in 2000 to reflect such aspects as the rapid development in the various fields of computer science, the academic aims of the department and market needs. All of the universities have now further revised their curriculum and are now very largely compliant with the IEEE/ACM 2001 curriculum, although some of the core aspects identified in that document are electives at some universities. This further update of the curriculum has frequently resulted in various groups of students at the same university and on the same programme following three different curricula; the reviewers suggest that a period of stability would in most cases be helpful. At the last review it was noted that there was no requirement to seek external specialist advice during the curriculum design process, and even when such advice was taken it was largely internal within the group of public universities; this is not the situation now and universities have responded well to the suggestions made by HFE review teams. Some universities continue to focus changes on the introduction of new technologies and their applications, as distinct from addressing fundamental shifts in the subject or enhancing the research underpinning advances in computer science and information technology. The reviewers found evidence of some diversification among the more innovative institutions and feel that such moves should be encouraged in order to enhance the richness of the national provision.
20. The IEEE/ACM 2001 curriculum encourages institutions to exploit the potentially rich and diverse discipline in which many subfields of computer science may flourish and many aims may be achieved. At present, however, changes to the curriculum have a tendency to be of a technical nature rather than fundamental shifts in the view of the discipline, for example defining a degree whose central theme is distributed computing. There is some evidence in the reviews that universities are beginning to move away from the rather single-minded one-size-fits-all approach






found in 2001, although such moves are still sometimes challenged by accreditation requirements, and sometimes by university regulations. For example, the University of Jordan has a strong formal computation theme but is constrained from further developing advanced themes by a university regulation that states that an elective course cannot be a pre-requisite for another course. There have been many useful curriculum updates, for example making some of the more dated traditional courses, such as assembly programming and numerical analysis, electives and system programming no longer dominate most curricula. Moreover, well respected topics, such as human computer interaction, databases, web technology, networking, client server computing, internet security, data mining, data warehousing and computer and internet security, are now included in the advanced core or electives. Unfortunately, some of the curriculum changes have been less successful, and there are reported cases of nominally advanced courses not reaching an appropriate depth, in addition to the insufficient underpinning for advanced courses because an intermediary course is missing or simply inappropriate choices of courses.

21. Many universities have recognized that good software has to be engineered and as a result have introduced software engineering and systems analysis and design, although all too often the only such courses are of an introductory nature, but delivered in the final year of study. These disciplines enable the development of essential software development skills and need to be delivered at an early stage; they can then be followed by a second advanced course in each case. The best of the curricula have embraced the object-oriented paradigm rather than just adding an object-oriented programming language, and they have come to a clear decision on the first programming language. Regrettably, this is not universally true, and although most universities have changed the first programming language, students at some universities are clearly struggling to learn this fundamental skill. In part this problem appears to arise because the students do not learn good problem-solving techniques and skills. For example, flowcharting was considered to be a weak technique for problem solving 20 years ago, but is still being used. However, there is also a question of the appropriateness of the first language, which in many institutions is then followed by many more languages, at least six at one university. Such curricula raise two questions: 1) what is the point of teaching more languages when the students have not all understood the first one, and 2) what value does it add to a student's education to repeat a near identical experience? The reviewers would not wish to discourage the teaching of programming, which is one of the great strengths of the national provision in computing; however, there is a continuing overemphasis on teaching programming languages with the same paradigm being repeated in a different language. The reviewers would encourage all providers to identify their intended learning outcomes for programming and then teach a core language, such as Java, with a heavy emphasis on problem solving across a wide range of problems and environments, for example small imperative programmes, recursion, visual programming, event-driven programming, and advanced APIs and application-oriented software systems.
22. The Graduation Project is now mandatory at all participating universities. It gives students the opportunity to demonstrate both subject-specific and transferable skills, and is a major strength of the overall programme design, although it would be more beneficial if the project carries a greater credit-hour rating, as it would in the UK. Projects make a valuable contribution to the development





of transferable skills, give students the opportunity to demonstrate that they have acquired graduate skills such as independent learning, research, critical evaluation and citation, and also allow them to bring together numerous aspects of their studies in a capstone project.

23. It continues to be the case that at least five universities require students to undertake field training during the summer after they have completed a minimum number of credit hours. These universities use their contacts with local industry to place students in suitable organizations to undertake around 150 hours of training. The main objective is to give students the opportunity to put theory into practice. The reviewers continue to consider the use of field training to be a strong feature of these provisions and further consider the idea of linking field training to Graduation Projects when possible to be an example of good practice, which could be more widely adopted with advantage.
24. A significant feature of the curriculum at many institutions is the provision of training activities, which complement the credit-bearing courses. They also include training courses (for both staff and students) on various topics, such as the use of specific software packages, which are not actually required for particular courses. The reviewers consider training which is outside of the main educational courses to be an acceptable way of introducing students to additional programming languages. Sun, Cisco, Oracle and Microsoft products are all featured in such courses. The University of Jordan is reported as continuing to run its excellent Internet Club, and a similar scheme has been established by the students at Zarka. There is quite good anecdotal evidence that these additional qualifications enhance the graduates' employment prospects.
25. Although the level of scholarly activity in general and research in particular remains low across the participating universities, there is evidence of increased activity. Four of the reports now indicate that there is an active research base within the department and that this influences and compliments the curriculum and teaching; however, at three others it is evident that such activity is minimal. The reviewers suggest that one of the differences between universities in Jordan and many of its competitors outside of the country is the level of research and other scholarly activities. In the long term, an active research culture is a pre-requisite for maintaining and raising academic standards.
26. In 2001 the overview report concluded that "In general, and acknowledging the staffing problems, the universities need to utilize and further develop their potential strengths and focus their scholarly activities, including not only their research but also the design of the curriculum, as this would enable them to strengthen the links between research and teaching at all levels and therefore enhance the ability of the universities to fulfil their, and the nation's, academic aspirations." This statement remains substantially true. Although more universities have much better focused curricula than in 2001, and technical adjustments are in place, many would also benefit from a long-term view – an academic vision – of the direction of computer science education.



27. The previous overview report listed the following conclusions which related directly to this aspect:

- a. There is evidence of lack of academic depth at a number of institutions, and the reviewers recommend a stronger system of prerequisites to ensure depth as well as breadth.
- b. The university defined courses that meet the intention of introducing breadth into the curriculum and contribute to the attainment of national goals in addition to enhancing essential skills. They could usefully be extended to ensure that all students acquire essential transferable skills.
- c. The underpinning courses for computing are insufficiently focused at most institutions, and clearer objectives for this set of courses could lead to graduates who have more relevant knowledge of information technology, its applications and its role in industry, while continuing to produce employees who understand the meaning of, and need for, rigour.
- d. The curriculum at several universities contains some components that are obsolete and lacks a clear focus and vision for the future. Updates to the curriculum are often piecemeal, often resulting in less rather than more coherence and sensible changes are sometimes challenged by accreditation requirements. The reviewers recommend that in future the accreditation process should be concerned with resources and processes but not with curriculum content.
- e. Graduation Projects are a strength of the overall provision and many are imaginative and challenging; however, they do not always demonstrate that the skills that identify a graduate from a nongraduate have been applied. The higher order skills of analysis, synthesis and evaluation were missing from the majority of projects, in particular, the ability to use primary and secondary sources, correctly cite referencing and write reports.
- f. Field training is a strength and could be more widely used. In particular, the idea of linking field training to Graduation Projects when possible is considered to be an example of good practice that could be universally adopted.
- g. The use of training courses that are outside the credit system to address the introduction of industry-specific software and technologies is an example of good practice.
- h. The use of industry to enhance the students' experience is a strength of several provisions.

28. Across the eight universities, the average grade for this section is 3.5. The reports identified the following conclusions with respect to this aspect of the provisions:

#### **Strengths and areas of significant improvement**

- There has been considerable growth in computer information systems and software engineering programmes since 2001;
- Seven of the eight departments now form part of an IT faculty thereby bringing improvements and the range of subjects making up the faculty requirements is now more appropriate to computer science specializations at five of the eight universities;
- Computer Skills courses are now embedded within the curriculum, and essential transferable skills, and professional, legal and ethical issues are now addressed at most universities;
- The computer science curriculum now addresses the IEEE/ACM 2001 at all of the universities;
- Universities have responded well to the recommendations of the pilot HFE reviews, and in two cases;
- Some of the more dated traditional courses have now been deleted, or become electives, systems programming no longer dominates every curriculum, and more up-to-date topics are now included in most programmes.



## Weaknesses


- A stronger system of prerequisites is needed to ensure that students achieve depth as well as breadth;
- At two universities faculty requirements continue to distort the curriculum, resulting in introductory and intermediate courses having to be pushed back into the later years and reducing the possibilities for students to study advanced and up-to-date topics;
- A few of the curriculum changes have been less successful, and there are reported cases of nominally advanced courses not reaching an appropriate depth, in addition to the insufficient underpinning for advanced courses because an intermediary course is missing, or simply inappropriate choices of courses;
- At some universities there is a continuing overemphasis on teaching programming languages with the same paradigm being repeated in a different language, sometimes coupled with weak development of problem-solving skills;
- The universities need to establish a research culture within each department;
- At present curriculum review is limited to technical changes to the existing programme; departments could with advantage consider a more fundamental review of their aims and therefore their vision of the future of the discipline.

## 3.4 Teaching, Learning and Assessment

29. At present there is little indication that universities have moved to articulated teaching strategies, although there is evidence that many of the universities have accepted the need to address teaching-related matters and to widen the range of teaching and learning activities. For example, the department at Zarka university has considered to good effect the relationship between its teaching method and the intended learning outcomes. At most institutions students can expect two or three hours of traditional lecture each week for each course, supported by practical work, where appropriate. There is some evidence of an increased use of tutorials for theory classes and wider use of student-centered activity such as discussions. There is also now some evidence that classes are tailored to the needs of groups of students, for example, labs tend to be credit rated in the freshman year, while student-led discussions and seminars appear later. There are a number of examples of good practice at various universities. For example, Philadelphia university is trying to reduce the number of lectured hours in favour of student-led activities, Jordan ran an 18-student project based on a special-topics course with an aim of producing publications, and Princess Sumaya University has a positive policy of involving every student in every class. There is good evidence that data shows, OHPs, projectors and other technological aids to teaching are more widely used than in 2001, and approximately half of the universities are offering e-learning as a supplement to their normal activities. The reviewers consider that there is a greater variety of teaching and learning methods during the last reviews and that there is evidence that several universities now offer the students a wider range of activities. While the situation has improved at most universities, the reviewers found some evidence that not all students are actively involved in their learning and encourage the providers to adopt best practice and continue to search for and develop independent learning opportunities for students, that are in line with the aims of the programmes.

30. At most universities lectures appear to be limited to 40 students, although some are 80, and






laboratories restricted to 30, or less, to suit the size of the laboratory. Laboratories are usually supervised by teaching assistants. As at the last review, courses that attract large numbers of students are usually organized into multiple sections which can be taught by more than one member of academic staff. There is good evidence that the management of multi-section courses has been further improved. For example, Philadelphia now has a Module Working Group for each module, multi-sectioned or otherwise, and several departments have allocated coordinators for all multi-sectioned courses. Several universities not only successfully manage multi-section courses but also deliver these twice for their day and evening programmes. These situations are effectively managed and help ensure the quality of teaching, learning and assessment.

31. All institutions now appear to provide students with course guides at the start of each course. The best of these guides specify learning outcomes that are well matched to the course content, the teaching methodology, assessment strategy and a set of core and supplementary references to academic and technical literature, and follow a uniform format. Unfortunately, some of the guides continue to be deficient; for example, the depth at which a topic is to be covered and what is expected from the student are not included. It is not yet standard practice to place course guides on departmental websites.
32. Lecture notes are more commonly provided for students now, and these are sometimes held on the web, which can also provide further online support for students. For example, one university, Al Ahliyya, has acquired the Blackboard virtual learning environment and requires all staff to place their notes on this system, while at other universities individual staff are making similar progress. The reviewers noted that while most websites are improving, progress is slow at some institutions. The reviewers do not see the use of the web and notes as inconsistent with the notion of the standard text and believe that used selectively they would help to enable diversity and depth in the curriculum. The reviewers encourage departments to study some of the excellent websites in the UK, which contain all of the material for each course and that enhance the student's learning experience.
33. Time constraints and the timing of reviews were such that only a few classes were observed. Of those observed, there is some evidence of increased use of data shows and other aids, although this was not universally true. While the number of classes observed was small and therefore cannot be used to judge the overall quality of teaching, it is evident that there is a growing divergence between teaching in the best departments and the remainder where it continues to be very traditional, there is little attempt to interpret material from the set book and there is minimal involvement by the students. The reviewers encourage all instructors to improve teaching techniques in order to provide a richer experience for the students and enhance their learning experience.
34. A few departments continue to use 'technology-enhanced lectures', such as, in particular, Power-Point presentations and online software demonstrations that were used effectively to illustrate course material. JUST now uses its 'telecasting' system, to support the teaching of the first-year Computer Skills courses, and although the reviewers expressed some reservations regarding its academic benefits, it is at an early stage of its application to live situations. As noted above, there






has been some growth in the use of commercial e-learning facilities although it does not appear that there has been any attempt to evaluate their educational benefit.

35. There are a number of changes with regard to skills development and independent learning and, on balance, the situation has improved with many universities moving slowly away from a provider to a student-led or mixed learning situation. Zarka university appears to be the leader in this process, with its skills matrix that documents the relationship between the intended learning outcomes and the courses. As noted under 'Aims', learning outcomes can be classified under the headings: knowledge and understanding, practical skills, intellectual skills and core skills. For Zarka university the advantage of its matrix is that it provides assurance that all relevant aspects of the course are covered at the level they wish to cover them and that there are no omissions. The reviewers suggest that such a matrix is a worthwhile addition to every department's documentation; it would, for example, highlight omissions with respect to key transferable skills and also document the need for problem-solving skills identified in a few reports.
36. As noted in the last report, the advantages and problem of using group work are well known throughout the providers. In general, for example the group activities feature is embedded within the courses and is considered as being a major vehicle for the graduation project. The benefits to learning are well understood and exploited, in particular the need for teamwork, report writing, and presentation skills. There appears to have been some improvements with regard to recognizing the contributions of individuals usually accompanied by enhanced documentation for the graduation project. The reviewers continue to consider group work to be a strong feature of the work at the universities and applaud the assessment of presentational skills.
37. The last report noted that students do not always appear to be encouraged to develop as independent learners. For example, laboratory sessions are often highly structured, and the teaching is oriented around the set book, which can be followed without regard to its suitability. The report also noted that graduation and other projects, group or individual, provide opportunities for independent work. There is some suggestion that reviewers would welcome changes to the taught classes so that they more actively encourage students to learn and understand the course material. The reviewers applaud the growth in student-led learning activities, for example seminars and discussions, which they believe contribute to independent learning and greater student involvement. Most universities continue to improve their guidance for projects, which are well organized and rigorously assessed.
38. The arrangements for the assessment of students' achievements continue to be a major weakness in the programmes reviewed. Noting some improvement, the reviewers continue to report a low level of confidence in the assessment processes that are currently adopted by the institutions. Although in theory there is some flexibility in the assessment regime, in practice almost all assessments, by number and mark value, but not by the effort involved on the part of the student, are examinations or tests, and it is common for 90 per cent of the marks to be awarded for examinations. It follows that only between 10 and 20 per cent of the total available marks are generally available for assignments, further devaluing the worth of independent learning.





Moreover, there is some evidence that substantial numbers of examinations, and tests, consist of short answer or short multi-choice questions only. This situation can lead to problems such as: assessment overload, scheduling difficulties, measuring academic depth, distinguishing those students who have learned and understood the course content from those who have simply learned to repeat the material, and the relative weight of skills against knowledge in the final course results. This situation is becoming, and will continue to become, more apparent as the courses are defined using learning outcomes. In addition, it becomes more obvious where the testing of specific learning outcomes, rather than specific pieces of knowledge, is omitted from the assessment schedule. The reviewers identify all of these points in the reports; sometimes more than one in a single report. They suggest that the assessment framework should be made more flexible, and that each course should include a schedule showing how each learning outcome, skills and knowledge, will be assessed using an appropriate method. Best practice can then be followed to avoid undue overloading and bunching of assessments across programmes. The reviewers found some evidence of the use of formative assessments, although these were not always marked and therefore their value in enabling learning was reduced.

39. The quality of examination papers continues to be variable, and at three institutions those for advanced courses are judged to be of limited academic depth. However, there has been a considerable improvement in the process of preparing papers at other universities with a corresponding improvement in quality, in particular with respect to matching with the learning outcomes. While there are many such improvements, those at Philadelphia university deserve special mention; the University has introduced marking schemes and moderation of all papers before they are undertaken by the students, each course group ensures that the assessments are appropriate and covers the learning outcomes, and external examiners moderate the papers and scripts as a post-assessment. Similarly, Al-Isra university has introduced a system of revisers to check papers, and this scheme can easily be extended to match best practice. There is much in these schemes which could be adopted by other universities.
40. The reviewers generally found increased evidence of marking schemes and of explicit assessment criteria being used for the marking of assessments; however, the quality of marking and feedback to students continues to be very variable. In a few cases, the marking was transparent and staff provided written feedback to students to an agreed timescale. In a few others, examination papers have to be solved in class after they have been marked and grades distributed. In general, students confirmed that this individual discussion is a regular and very useful activity. However, providing feedback through individual discussion and class sessions without additional documented feedback makes for poor transparency and poor record keeping.
41. The previous overview report listed the following conclusions which related directly to this aspect:
  - a. Teaching strategies are rarely explicit, and there is an insufficient variety of teaching methods, in particular, to address the needs of diverse groups of students such as those between the strongest and weakest and those who are in their first and final years of study.
  - b. The use of course guides is a strength which should be adopted universally, and the institutions are





encouraged to follow the lead of some institutions who are developing websites. In so doing, they may wish to look to the UK, where many departments have excellent websites which contain all of the material for each course and programme.

- c. Although it was only a limited sample, many of the staff appear to be gifted teachers.
- d. The widespread use of group work is a major strength that encourages the development of many skills. Best practice in assessing group work should be more widely adopted.
- e. There appears to be little opportunity or encouragement for students to develop as independent learners. Although discussion of individual work with students is a strength, most aspects of assessment need attention at many universities. In particular: papers often require only mechanistic answers, and there is no differentiation as students progress; there is a lack of academic depth; the assessments are not always tuned to assess the achievement of the stated intended learning outcomes; written feedback was often absent; and there was rarely any attempt to provide marking schemes or written criteria.

42. Across the eight universities the average grade for this section is 3.25. The reports identified the following conclusions with respect to this aspect of the provisions:

#### **Strengths and areas of significant improvement**

- Many of the universities have accepted the need to widen the range of teaching and learning activities, and there are a number of examples of good practice at various universities, although there are few explicit documented strategies;
- There is evidence that overhead projectors, data shows and other forms of technology are more widely used than in 2001, and five institutions are offering e-learning as a supplement to their usual activities;
- There have been a number of changes with regard to skills development and independent learning;
- The management of multi-section courses has been further improved with respect to the quality of teaching, learning and assessment;
- There has been an improvement in the process of preparing examination papers with a corresponding improvement in quality, in particular with respect to match to the learning outcomes;
- All institutions now appear to provide students with course guides at the start of each course.

#### **Weaknesses**


- Assessment is heavily biased in favour of examinations and tests, many of which are short answer or multiple choice, leading to difficulties with measuring academic depth, distinguishing between students who have learned and understood the course content from those who have simply learned to repeat the material, and the relative weight of skills against knowledge in the final course results. At present, reviewers do not have confidence that assessment is assuring academic standards;
- Assessments are not linked to intended learning outcomes, and therefore departments cannot assure themselves that these outcomes are being met;
- The quality of examination papers continues to be variable, and at some institutions those for advanced courses are judged to be of limited academic depth;
- The quality of marking and feedback to students continues to be very variable, with few courses being of an acceptable standard.



### 3.5 Student Progression and Achievement

43. It is clear from the reports that there has been some re-distribution of the students wishing to study IT-related disciplines from computer science to information systems and software engineering programmes. The reviewers noted that while the competitive system of entry to the public universities continues, these universities are now also allowed to accept a second stream of entrants that includes students with lower Tawjihi grades in addition to overseas students and various special groups. The private universities are not included in the competitive system although they are governed by national admission criteria.
44. For students from the competitive entry scheme, the public universities can expect their entrants to have grades of over 80 per cent in the Tawjihi, with averages over 90 per cent at the most sought-after institutions. In general, the private universities take students who have performed less well in the Tawjihi, although many report averages of over 70 per cent and a small proportion of entrants score over 80 per cent. Individual private universities vary in their entry requirements, with some trying to maintain a minimum entry of 70 per cent, although there is a nationally agreed minimum of 55 per cent in the Tawjihi for entry to university. It is not possible to tell from the reports the average of the number of students entering university with scores below 60 per cent, although one figure suggested that it amounts at 15 per cent, or the average marks of special entrants to the public universities, while one report quotes it at 65 per cent. The divergence between the latter figure and the quoted average of over 90 per cent for the competitive stream has implications for the universities concerned, particularly in relation to how the weaker students are taught and supported academically.
45. Two reports suggest that it is possible that the Tawjihi is not, by itself, the best predictor of university performance, and that aptitude for the subject should also be considered. There is no reported evidence, as of yet that aptitude-based schemes are effective, although intuitively it appears likely that in a subject in which practical skills are so fundamental a well-chosen scheme could be effective in reducing attrition, particularly among the lower achievers in the Tawjihi. The University of Jordan runs an entrance examination in Arabic, for non-native speakers of the language, and English for some entrants. The reviewers suggest that aptitude-based entry schemes could with advantage be considered at a national level with an appropriate policy.
46. In addition to home school graduates, many institutions have quotas for special groups including foreign students, evening students, military students, those from the community colleges, disabled students, and those transferring into programmes from elsewhere in the institution or another institution. While it is difficult to generalize about the entry qualifications of these students, they do tend to have lower averages at high school grades. The numbers in some groups are high; for example, evening entrants outnumber day entrants at Al-Isra university. These arrangements are commended for widening access to higher education.
47. Progression continues to be reviewed each semester. In general, students must achieve a minimum (sometimes quoted as 50 per cent) in a course to be awarded the credit hours for it, and they must maintain an average mark of 60 per cent over all courses taken in order to remain on the






programme. Failing students are given time to recover, and students who continue to fail are given formal warnings to improve in the next semester. If improvement does not occur, the student may be asked to leave the programme. As noted under CDCO, courses are frequently prerequisites for others to be taken later; however, at some universities students only need to have studied, but not necessarily passed, the prerequisite courses before proceeding. The reviewers consider this to be bad practice.

48. Programmes are typically designed to be completed in eight semesters, although the actual time taken can be shorter, by using the summer semester, or more usually longer. Some reports express concern over the average 30 per cent (some suggest a much higher figure) of entrants who do not complete in the nominal time, although on balance the flexibility of the regulations probably outweigh any disadvantages in this respect.
49. The universities' experience with special groups of students remains variable, although few of the institutions appear to undertake any rigorous evaluation of the performance of such groups. The evidence that is provided appears to be largely anecdotal or sometimes synthesized by the reviewers. The reviewers suggest that proper monitoring of the performance of special groups is essential to ensure that extra support is given where it is needed.
50. The reviewers estimate that between 20 and 30 per cent of students do not complete their programmes, although attrition rates as low as 3 per cent and as high as 50 per cent are quoted. Overall, these figures are of concern, in part because of the number of students who might be failing, and because it continues to be extremely difficult to determine an accurate figure while some universities do not monitor attrition. The reviewers consider that in general recruitment of the right students, appropriate assessment and effective teaching should be rewarded with success, not failure, and that those universities that are failing large numbers of students should not only know that they are doing so but also why the students are failing.
51. The various institutions attribute failure to various factors, including the growing numbers of students overall in computer science, the number of students admitted through the special programmes, students being admitted with minimal entry qualifications who are not prepared for university level study and the transfer of good students to other institutions. However, there was little data available to support any of these suggestions. The various universities have quite different practices with regard to maintaining records of student progression and dropout rates. The best of the institutions hold accurate information that has clearly informed their activities, while others had little information and did not appear to regard measurement of performance as important. The reviewers suggest that measuring progression and attrition or retention among the various groups of students is important, and that this is a situation where the National Accreditation Council could usefully provide a standard for all universities, possibly using a flowchart model such as that commonly used for engineering accreditation in the UK.
52. In order to help improve retention rates, attendance is normally required at lectures, and practical sessions are monitored formally. Verbal or written warnings may be issued to students regarding






their lack of attendance. Student assessment results and attendance are normally discussed within the departmental council, and the reviewers accept that failing students are detected at an early stage. Various departments have put in place positive measures to address the failure problem including: supplementary courses, timetabled office hours for staff, academic tutorial groups and the availability of the department chair to counsel students during admission and registration periods.

53. The graduation profile for most institutions continues to be skewed towards the good/satisfactory groups, with relatively few students gaining excellent or very good, but a substantial number, in some cases over 50 per cent, gaining only satisfactory. While it is dangerous to compare high school performance with university performance, at present it appears that the universities add little value to most students, and in many cases it appears that value is detracted. There is clearly an expectation among students that if they arrive at an institution with an excellent grade, in general they should leave with one, and this is not happening. Many of the universities are concerned about the low number of excellent and very good graduation grades and are attempting to rectify the situation. The reviewers consider that the whole question of performance and value added, including failure and merits an in-depth exploration. Any such investigation would need to take into account; why students fail to achieve at the various levels as it is possible. Additionally further investigation should take place regarding; how low expectations, failure to understand fundamental knowledge and acquire fundamental skills (such as problem solving, ill-defined learning outcomes, poorly designed assessments, and assessments that do not discriminate between recall and understanding and cannot discriminate between good and weak students), could all be contributory factors to low grades.
54. The reviewers examined student work at each of the universities. As at the last review, there was evidence, at a small number of universities, of work of high theoretical and technical standard, and some graduation projects were based on challenging concepts; however, too many noted little evidence of background research even in the graduation projects and final year coursework, low academic depth or lack of challenge. At present, too much assessed work involves ‘recall and describe’, rather than ‘recall, evaluate and apply’, even at advanced levels.
55. At the last review, it was noted that “Although Graduation Projects are viewed as applications-oriented rather than research-oriented, there remains a need to demonstrate those skills which identify a graduate from a nongraduate, in particular the ability to use primary and secondary sources, correctly cite referencing and write reports which demonstrate that the higher order skills of analysis, synthesis and evaluation have been applied”. Reviewers continue to consider that such skills are not evident, although the projects incorporated significant amounts of good technical development work.
56. The reviewers did not set out to specifically assess the students’ ability in English. Classes were quite commonly conducted in Arabic, but with textbooks, notes and usually board work in English. While the reviewers understand the reasons for using Arabic for explanations, the inability of some students to follow the discussions in meetings and express themselves clearly suggests that





all students should receive at least part of their tuition solely in English. Similarly, with written work it was clear that while the best students could write well in English, others were less able and some answers were in Arabic. While the reviewers accept that many students are gaining sufficient competence to read the technical literature in English and to make presentations, it is clear that some students do not possess this level of fluency in the language and this inevitably affects their ability to study successfully. Universities could with advantage revisit their English language courses and ensure that these are sufficiently focused on the use of technical English.

57. Most academic staff continue to think that finding a job is not a problem for graduates, although there is some evidence that this in fact is becoming harder, a view shared by some students. Half the universities keep reasonable records of the progress of their graduates while the other half rely on incomplete and possibly inaccurate anecdotal evidence. Of the institutions that do collect data in a systematic manner it appears that over 80 per cent of graduates find employment in the computer industry and others take up teaching, laboratory supervision and other jobs. If repeated across the sector, these rates compare favourably with UK institutions. Available data suggests that a few universities send up to 15 per cent of graduates on to further study, although for most universities the figure is very low, perhaps 2-3 per cent.
58. In conclusion, while the aims that relate to the provision of a broad or comprehensive IT education continue to be largely fulfilled, as do those that relate to meeting current industrial needs and high standards of practical work, the academic standard could be improved by fostering a more critical, evaluative and mature outlook in student work and increasing the level of challenge for the best students. Problems, such as lack of citation in projects, are typical of academic immaturity and are unacceptable professionally. While much has improved at a few universities, the effectiveness of the implementation of aims concerning high academic or international standards continues to be more questionable and there is continuing need to review the arrangements for assuring academic standards.
59. The previous overview report listed the following conclusions, which related directly to this aspect:
- In general, the quality of home students is high, and some universities are fortunate in being able to recruit the most able students.
  - Although many universities have attempted to address the problem, the level of attrition remains quite high on many of the programmes and frequently insufficient information is collected to allow a systematic analysis of the losses.
  - In a few institutions, work was of a high theoretical and technical standard, and students are clearly able to apply concepts well; however, in too many institutions there was little evidence of background research even in the Graduation Projects and final year coursework, low academic depth or lack of challenge. Many students failed to demonstrate an ability to use primary and secondary sources, correctly cite referencing and write reports which demonstrate that the higher order skills of analysis, synthesis and evaluation have been applied.
  - Students' command of English was generally satisfactory, and they were able to make effective presentations, be receptive to questions and follow the literature.



- e. In general, the reviewers accept that graduates receive relevant jobs and are well thought of in the job market; however, this is to some extent an act of faith on the part of the reviewers as few institutions collect data in a systematic and reliable manner.

60. Across the eight universities the average grade for this section is 3.625. The reports identified the following conclusions with respect to this aspect of the provisions:

#### **Strengths and areas of significant improvement**

- There has been some re-distribution of the students wishing to study IT-related disciplines from computer science to information systems and software engineering programmes;
- Special recruitment arrangements are commended as they widen access to higher education;
- The public universities are now also allowed to accept a second stream of entrants that includes students with lower Tawjihi grades;
- Failing students are given time to recover;
- Departments have put in place positive measures to address the departments have put in place positive measures to address the Some departments have put in place positive measures to address low grades and failures among students;
- Employment rates continue to be high.

#### **Weaknesses**

- The public universities' experience with special groups of students remains variable, and few of the institutions appear to undertake any rigorous evaluation of the performance of such groups;
- The attrition rate is probably between 20-30 percent overall, and as high as 50 per cent at one university, and many universities do not monitor attrition;
- The graduation profile for most institutions continues to be skewed towards the good/satisfactory groups, with relatively few students gaining excellent or very good graduation grades;
- At some universities there continues to be little evidence of background research, even in the graduation projects and final year assessments, some of which lack challenge and fail to achieve academic depth.

### **3.6 Student Support and Guidance**


61. All universities continue to run induction programmes for new students, although the detailed arrangements vary and these now include inducting students into their department and programme. Institutions now all present new students with a handbook which usually details the University mission statement, organization structure, student code of conduct, progression and awards regulations and matters relating to student welfare and programme specific material. A few institutions also use induction to evaluate the students' abilities in key areas, such as; English language, and to determine their future course of study. Handbooks appear to be clear and comprehensive, and induction arrangements are generally satisfactory. None of the reports mentions induction for returning students although these can be beneficial in specifying the progressive nature of the learning experience, for example, higher order skills and independent learning.





62. The arrangements for providing students with academic guidance about their programmes vary considerably and are generally satisfactory. Most institutions provide clear written guidance on the structure of programmes, although course information can be quite terse, and a number of institutions have transferred such material to the web. The reviewers recommend that all institutions provide full written guidance on programmes and courses and that they follow the lead of the best universities in Jordan and elsewhere in setting up comprehensive and user-friendly intranet sites. At many institutions the academic adviser plays a major role in guiding students through their programme.
63. All institutions allocate new students to an academic adviser during induction, and the adviser normally stays with the students throughout their time at the university. Advisers generally have a pastoral and an academic role, although the academic role appears to be the better understood. The adviser schemes are usually well defined and are now generally effective, although many students reported that they only see their advisers to sign off their programme. One university now has a computerized registration system that removes this need. It appears that most advisers now have a monitoring role, with generally good access to student information. It is possible that the system will move over time towards one in which students see advisers as the preferred source of valuable academic advice. This is not generally true at present because the students prefer to rely on the open-door policy, or office hours, of staff and staff goodwill, although this is not universally available. This situation is not dissimilar to that found in many universities in the UK; unfortunately it increases rather than decreases the pressure on staff as they are expected to be available on request. As noted in 2001, it is possible to define an academic adviser scheme that carries with it a scheduled programme of work, including subject-specific and transferable skills. While such a programme requires staff time, it can have a beneficial effect on retention and reduce the number of ad hoc queries that staff are required to answer.
64. It is clear from the reports that several universities have enhanced their support services in a variety of ways. For example, AAU has set up a Learning Enhancement Centre to help weak students, JUST and Jordan use laboratory supervisors to provide tutorial support, Philadelphia has a Drop-in centre for weaker students, and several institutions run support courses. The reviewers support such activities and consider it essential that all students at all universities receive sufficient academic support so that they have a chance to overcome short-term problems. It is too early to say whether or not such activities have led to enhanced retention.
- The supportive nature of Jordanian society appears to reduce the need for pastoral support for students although such support is usually available, normally through the Deanship of Student Affairs. In general, these arrangements appear to be effective. At the University of Jordan all academic staff are assigned a family of students who meet regularly for social and community activities. This is regarded as a model of good practice and is very effective in providing a supportive environment for students. Many other universities provide a variety of pastoral services including some for disabled students. Pastoral support continues to be effective and has improved further since 2001.





65. Career advice generally continues to be informal through departmental staff, although at least one university now has a graduate office which deals with careers. Two other universities hold annual job fairs, and job vacancies and jobs wanted on its website. In the latter case, the department's industrial links are particularly good, while other departments also make use of their industrial links to secure employment for their graduates. While many students appear to accept this situation, industrial links at most institutions are informal, and these contacts are not always sufficient to enable all students to find employment. While the situation has improved since 2001, it has a long way to go before it can be said that all universities offer a good career service and effective contact with alumni. The reviewers strongly recommend that all universities establish a career office with the aim of helping graduates find appropriate jobs, networking alumni and providing the university with accurate information on the take-up of employment.

66. The previous overview report listed the following conclusions which related directly to this aspect:

a. "Proactive students are well supported both academically and pastorally; however, more systematic academic support would benefit less proactive students, improve retention and alleviate the loading on staff."

67. Across the eight universities the average grade for this section is 3.75. The reports identified the following conclusions with respect to this aspect of the provisions:

#### **Strengths and areas of significant improvement**

- All universities continue to run induction programmes for new students, and some use induction to evaluate the students' abilities in key areas;
- Student handbooks are now available at all universities and are generally helpful and appropriate;
- The arrangements for providing students with academic guidance about their programmes are generally satisfactory, although web-based support could be improved;
- All institutions allocate new students to an academic adviser during induction, and the adviser normally stays with the students throughout their time at the university.
- Most advisers now have a monitoring role with respect to students and generally good access to student information;
- Several universities have enhanced their support services in a variety of ways;
- Arrangements for pastoral support appear to be effective.

#### **Weaknesses**

- While academic advisers are a source of valuable academic advice, particularly to junior students, most prefer to rely on the open-door policy, or office hours, of staff and staff goodwill;
- Career advice and the relationship between the university and alumni continue to be very limited at many universities.






### 3.7 Learning Resources

68. Arrangements for purchasing, maintaining and upgrading computers vary from institution to institution, and there is good evidence of planning with regard to computer laboratories both in terms of the basic provision of PCs and more specialist equipment. However, there is little if any evidence that resource planning is related to the intended learning outcomes of the programmes or the courses. The reviewers suggest that well-defined programme specifications (in which the intended learning outcomes for the programme and each course are fully defined) would make it possible to generate a list of resources needed to meet the specified outcomes. There is also evidence that the universities reacted to external comment from the HFE reviews. One university has a new building for computer science students since the last review, and a second is taking action to apply the same. These arrangements generally appear to work well particularly in regard to the provision of computers.
69. IT provision throughout the universities is generally good, with reports quoting ratios of students to computers of 2:1 in some universities. In general, the main provision is high-grade PCs, but a number of departments also have Unix-based alternatives. While some of the nonPC equipment did not appear to be heavily used, the reviewers support the concept of giving students experience of diverse equipment and operating systems. Students at two universities continued to report a shortage of printers, otherwise the number and range of peripherals appeared to be satisfactory. The growth of computer skills courses for all students at the universities has led to the expected increased use of the PCs by non-computing students. Most universities appear to have addressed this issue by providing large-scale facilities for general use, for example JUST has a 400 PC facility; however, this is an issue at one university.
70. There has been a growth since the last review in the number of specialist computer-based facilities in various universities, which appear to be additional to the main PC provision. In particular, specialist-training facilities for certification in various commercial products are not uncommon, for example, Microsoft, Cisco, Oracle and Sun. In addition, a number of universities have computer architecture labs, distance-learning labs and several universities offer Unix or Linux as an alternative to Windows. While it does not impinge on the main PC provision, the reviewers support this diversification as it offers students a broader view of the IT world.
71. Support for computing is generally thought to be good; there is often a university computer centre, and most laboratories are supported by a resident supervisor, whose role is usually to help students with their work and maintain the equipment. Opening hours for computing laboratories are generally much shorter than those in the UK; in many of the private universities, computer laboratories and the library were only open for office hours, roughly 0900 to 1700 hours.
72. There is a laboratory scheduling problem at many universities, which arises because most classes include a substantial element of practical work but do not generally have an associated scheduled laboratory class. These organizational problems need to be addressed; in particular, labs need to be scheduled in such a way that there is ample free time for students to undertake practical work at times when they are free. This does not always happen. It is possible that students will have to change their working practices and use labs at unpopular times when they are currently closed.




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73. Internet access for students continues to be very variable between the universities, although overall it is improving and is scheduled to continue to improve. All universities have the necessary internal networking and connections to the Internet, although the speed of the connection is sometimes low. As at the last review, access to the Internet by students appears to suffer from organizational and communication problems at some institutions. The best universities provide good access to the Internet, which is widely used by students to research their projects and term papers. Such universities also have a developing intranet site offering useful facilities to students. Similarly, university-based email is not universally available to students and is not a normal part of the communications process between staff and students; this appears to the reviewers as a serious omission taking into consideration that the widespread use of email can both save work and enhance communications. The reviewers consider that Internet access and email are essential to computing students and that good university and departmental websites are a vital part of the life of a modern university.
74. In general, the institutions have all the software needed for their courses.
75. The quality of the libraries has significantly improved since 2001, with two libraries either having new buildings or significant extensions and a further book-based library planned. In addition, Princess Sumaya University is planning an advanced e-library in conjunction with major commercial and academic partners. More significantly, every university has invested in its book stock, and many of the complaints with respect to the age of books and their appropriateness to the courses have been resolved. Unfortunately, this is not universally true and students or reviewers continue to express worries over the age and academic standing of books at approximately half of the universities, in particular, there remains some over-emphasis on programming and a shortage of advanced texts. On the positive side, the book stock at Philadelphia university is now described as impressive and that at Zarka university, as excellent. Students at the latter universities reported that they use the library, while those at institutions with weaker libraries appear to be reluctant to use them. The situation with regard to journals appears to be similar to that for books, with the better libraries providing the greatest number and variety of journals.
76. The organization of the libraries appears to have also been improved, with most having an electronic catalogue which is available to students on the Internet, although a few libraries need to make their catalogue available to students. In at least one case, the catalogue will be multi-lingual. The reviewers suggest that each department develops a policy for purchasing books that reflect their local course objectives, provide coverage at both textbook and advanced levels and provide a range of material in areas which are less central to their provision but might form the basis of imaginative graduation projects. Many libraries include a bookshop, and there continues to be some reports of long delays in ordering textbooks. This does not appear to be a problem at one university, and the reviewers suggest that for introductory and intermediate courses at least, it should be possible to agree on the textbook for each course well in advance and to commit to the choice regardless of who is assigned to teach the course; a policy which would also help with library purchases.





77. At the last review, the report commented that, “Perhaps the most worrying feature of the situation with regards to libraries is that many students do not appear to use them”,.” This statement continues to be true, and the reviewers consider that staff should use every opportunity to emphasize to students the value of reading a variety of texts and advanced books. This approach is not reactionary in the face of advances in electronic learning but rather relates to the inability of most people, including students, to read large texts on screen, and to their inability to critically evaluate material from the Web which has not been refereed. Notwithstanding the use of the Internet, an academic library should be a repository of refereed knowledge which students make increasing use of as they mature academically during their programme. This, it seems, is all too often not happening.
78. The quality of teaching accommodation has now improved, with the addition of new buildings at two universities, and the previously reported the lacking availability of simple teaching support equipment such as whiteboards, overhead projectors and data show facilities appears to have been largely resolved. As noted elsewhere in this report, the reviewers felt that many classes could have been improved by using the equipment which is now available.
79. The reviewers continue to be concerned about the level of staffing at most universities. They consider it a strength that faculty members are generally appropriately qualified with everyone from assistant professor and above having PhDs, mainly from universities in the USA and Europe while all others hold MScs. Nevertheless, there continues to be two major staffing problems: the total number of academic staff available and the small number of senior staff, taking into consideration that these are the academic leaders. Reports note estimated student to staff ratios as high as 44:1 and indicate that in cases where low ratios are quoted, the calculation frequently appears to have ignored significant areas of work, or included noncomputing specialist and laboratory supervisors. There has been some overall improvement, and a few universities have significantly reduced the teaching, supervising and student mentoring load on staff by appointing new staff. There remains a significant gap between reality and an acceptable staff workload at most universities.
80. As expected, the requirement to teach computer skills across each university has significantly increased the workload of many computer scientists, although this is not universally the case. In at least two universities, the work has effectively been handed over to other departments to teach their own students, while in other universities computer skills are taught only by computer scientists with a corresponding large increase in workload. To illustrate the possible workload, there were 16 computer skills sections to be taught this semester at one university with 18 staff members. The reviewers continue to suggest that a PhD in computer science is not a necessary prerequisite for teaching word processing, spreadsheet or basic programming; computer specialists should rather teach their subject on courses where their specialist knowledge is required.
81. Staffing problems affect all aspects of the students’ experience and performance as well as disadvantaging the staff themselves. Clearly, a lack of time inhibits the academic’s ability to undertake scholarly activities and research, and this in turn affects the students because the staff





are finding it difficult to keep up-to-date; it also affects the academic's chance of promotion and contributes to the shortage of senior staff. A shortage of staff also results in academics teaching important courses outside of their specialism, restricting the curriculum, leading to dated courses and causing staff to lead too many courses, all of which affect the students' experience, particularly with regard to the breadth of options and academic depth. The reviewers believe that although the shortage of academic staff has diminished at some universities, it remains a serious threat to the maintenance of academic standards at others.

82. The reviewers also consider that while schemes to send teaching assistants abroad to gain PhDs are laudable and make a significant and important contribution to staffing, there is an urgent need for more fully qualified staff that can only be addressed by the introduction of local PhD programmes. Such programmes would also add a focus for the research activities of staff by encouraging more of them to become or remain research active. It would also provide opportunities for existing staff to become PhD supervisors by allowing them to shadow experienced supervisors in the first instance. Such a centre could also house a first-class national computing library.

83. The following conclusions were directly related to this aspect in the last review.

- a. The quality of the information and communication technology provision is generally high, and students make effective use of the equipment.
- b. The review visits identified significant shortcomings in the library provision at several institutions. The criticisms focus on the availability of relevant up-to-date books and periodical stock, and in a few cases the organization of the library. The reviewers recommend that, in addition to addressing any organizational shortcomings, each department should develop a policy for purchasing books that reflects their local course objectives, provides coverage at both textbook and advanced levels and provides a range of material in areas which are less central to their provision but might form the basis of imaginative Graduation Projects.
- c. While the faculty members are well qualified, the number of staff and the number of senior staff is too low to support the provision and meet the aims of providing a scholarly environment in which students and staff reach their full potentials. More academic staff are urgently needed.

84. Across the eight universities, the average grade for this section is 3.5. The reports identified the following conclusions with respect to this aspect of the provisions:

#### **Strengths and areas of significant improvement**

- IT provision throughout the universities is generally good, and There has been a growth since the last review in the number of specialist computer based facilities in various universities which appears to be additional to the main PC provision and there has been a growth since the last review in the number of specialist computer-based facilities;
- The best universities provide good access to the Internet, while other institutions are proceeding more slowly;
- The quality of the libraries has significantly improved since 2001, and every university has invested in its book stock; the best libraries are now described as excellent;





- The organization of the libraries appears to have also been improved with most libraries having an electronic catalogue which is available to students on the Internet;
- The quality of teaching accommodation has now improved, and the previously reported availability of simple teaching support equipment appears to have been largely resolved.

#### Weaknesses

- There is a laboratory scheduling problem at many universities, and labs need to be scheduled in such a way that there is ample free time for students to undertake practical work at times when they are free;
- There continues to be complaints with respect to the age of books and their appropriateness to the courses at some universities;
- Many students do not appear to use the library, although there is some evidence that usage will improve as the quality of the library improves;
- While the staff are well-qualified, the number of staff in general and senior staffing in particular at some universities is too low to support the provision and meet the aims of providing a scholarly environment in which students and staff reach their full potentials;
- The requirement to reach computer skills across each university has significantly increased the workload of many computer scientists, although this is not universally the case.

### 3.8 Quality Management and Enhancement with Sustainability

85. The situation at the last review noted that although departments normally operate within the regulatory framework of the faculty or college, the university and the Council for Higher Education, there is rarely an identifiable documented quality management system. This situation has now changed and several universities are beginning to view the work of their councils and the regulations as part of a more unified whole and are attempting to write a quality assurance manual for the university. Philadelphia university has devoted a great deal of effort to produce such a system, and the report states that “The process of formalizing and documenting all the processes related to the quality management structure is impressive, and the staff should be commended on having identified a clear logical structure and having persevered to formalize and document this structure”. The reviewers suggest that once such a structure is in place and everyone knows what they have to do at various times in the review cycles and quality assurance activities at large, it becomes easier rather than harder to achieve quality.
86. Departmental councils are the decision-making bodies with respect to the programmes, and they have overall responsibility for quality management and enhancement at this level. Councils normally delegate some of the detailed work to sub-councils; for example JUST has five: research and external relations, academic affairs, staff affairs, student affairs and resources. All faculty members are usually members of these councils, and at some universities students join the council, or its sub-councils, for specific activities. Councils meet regularly, often weekly, and provide a focus for the discussion of, amongst other things, teaching, curriculum issues and student assessment. There is evidence that the department councils contribute significantly to quality management, not least by undertaking academic planning for the coming period and by monitoring its courses and programmes. There is also evidence that the deliberations of the councils are documented and that they frequently play an important part in closing quality loops.



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87. The private universities remain subject to annual accreditation and, in at least one case, run an annual internal review in preparation for this event. The departments have to prepare materials and collect basic data for the accreditation, which involves the university and the department. In the UK, both accreditation and subject review are less frequent, often quinquennial, and many universities have found it helpful to have internal reviews as part of their ongoing quality maintenance and to align them with these external events.
88. The 2001 report noted that there are effective systems throughout the universities to ensure that changes to the curriculum are properly discussed. It accepted that there is a wide range of discussions at individual level, through formal departmental discussion and approval, to formal approval by the university and the Higher Education Accreditation Council, but failed to comment that few universities involved outside academics or industrialists significantly in this process. At the earlier reviews, there were concerns regarding the quality of some of the reviews (Round 1) as at that time a very narrow view of the discipline reigned. The current follow-up review (Round 2) suggests that a more liberal approach is acceptable, and some of the richness of provision found, for example, in Europe is beginning to appear at the participating universities. The primary framework within which Jordan's universities work for computer science, ACM/IEEE 2001, and the primary accreditation body ABET, have both moved to a more liberal approach, and ABET's view is now "define your learning outcomes and a curriculum to meet these outcomes, and we will judge how appropriate the outcomes are and how well they are met." The national provision has some way to go before such freedom becomes the norm.
89. There is good evidence that several of the universities have improved their practice with regards to the monitoring of courses, although all continue to take a management-oriented rather than a student-centred approach. In the best examples, there is a formal process that requires each course organizer to prepare a summary of the course outcomes, including a statistical analysis of the results, and to undertake moderation of the multisection courses. All such reports are considered in detail by the department, and corrective action is taken if and when necessary. The outcomes of the departmental council are reported to the college and then to the university councils. The reviewers consider these processes to be simple, informative and effective in monitoring courses and programmes and keep the faculty and university informed with regard to the health of the courses and the programmes. Most institutions have processes that are similar but are not necessarily complete or documented. Unfortunately, the level at which corrective action is triggered does not always appear to be appropriate, and there are reported instances of situations which need attention, but do not receive it; to be effective, quality management can require bold decisions to be made. The reviewers recommend the adoption of a national standard based on best practice, including the monitoring of cohort and first destination statistics.
90. Industrial input at a few institutions is strong, in particular at JUST and Princess Sumaya University, and it is improving as other universities have established industrial liaison committees; however, some universities continue to suffer from inadequate external input from industry. The reviewers suggest that departments and programmes should be strengthened as a result of broad consultation with their stakeholders, which includes industry as the future employers of their graduates.





91. In 2001 the overview report suggested that universities could considerably benefit from appointing an external critical friend who could advise on the maintenance and enhancement of academic standards through, for example, curriculum development, the moderation of examination papers, the processes of constant benchmarking against other international centres and the moderation of assessments. Two universities have now appointed external examiners who can fulfil this role.
92. At the best universities, perhaps 2 or 3, it is quite clear that student opinion is monitored, that there are good communication channels with the students, and that students feel involved; unfortunately, this is not always the case, even though formal processes to ascertain student views are in place. All of the participating universities canvas student views using course, and sometimes other, questionnaires. Course questionnaires are about the performance of the instructors and are normally reported back to the instructors by the departmental chair; corrective action is normally taken when it is deemed necessary. The reviewers suggest that making the student's experience the focus of the questionnaire would make them less threatening to staff and open up the possibility of comments on other factors that influence the course delivery. Punctuality of other students and the library provision are examples of other factors influencing the success or otherwise of a course. The reviewers noted the use of open meetings with departmental chairs, deans and university presidents, which they feel are useful; however, it is not sufficiently focused for all purposes and a number of reports identify the need for formal bodies at which students may raise operational issues with respect to their programme to which they will receive a formal response. The students' complaints about the library at some institutions are an example of a situation that might need to be raised at a formal body.
93. Staff development for both new and existing faculty is now better established in the universities than at the time of the last review in terms of the number of activities, the range of activities and their organization. There is good evidence that many universities have taken on board the need to assure good teaching and assessment as a core requirement, without which quality cannot be assured. For example, with respect to staff development, over half the universities now have peer reviews of teaching schemes. One university has established a Staff Development and Academic Training Centre, and another runs Training Skills Workshops for new staff. Moreover, over half the universities train new staff and provide mentors for them. In addition, there is also a reported growth of attendance at conferences for research and training courses. The best-organized universities now have well-articulated, but not necessarily documented, staff development strategies.
94. With possibly one exception, universities have annual staff evaluation for all faculty; however, staff evaluation is a management-oriented process designed to achieve management objectives rather than staff development. Similarly, course evaluation is management-oriented, and some peer review schemes are feeding into the evaluation process, effectively providing management rather than peer review. It is possible that such schemes should be modified so that while there continues to be a management-led review of teaching and other activities there will also be a developmental processes that focus on helping instructors to develop as teachers and researchers. Peer review of classes is an example of such a process.



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95. Universities have guidelines for academic staff promotions that include the staff members perseverance to write; t publications, research, provide competitive teaching methods and manage other aspects of academic life. Although the conditions for promotion are not excessive, relatively few faculty appear to reach full professor status, possibly because of the workload, while other factors may also be at work, for example, faculty staff at one institution are on one-year contracts, which does not encourage a culture of commitment, staff development and promotion.
96. A number of universities clearly continue to consider academic staff development to be of paramount importance and are prepared to invest time and money in pursuit of their goals. New academic staff are often recruited initially as teaching assistants and, provided they are successful, they become eligible for scholarships to undertake a PhD at a university, generally in Europe or the USA. This process is commendable, but returning PhD graduates have never worked anywhere other than the sponsoring university, the process is quite slow, and the number of teaching assistants in the pipeline cannot keep up with the projected growth of computer science. The reviewers continue to believe that Jordan needs to establish its own PhD programmes and to enhance its master's provision by allowing the development of such programmes at any university which has the wish and capability to do so.
97. In summary, the reviewers generally found evidence of improving quality structures and systems, and while they are not always consistent, explicit or fully documented, on balance mostly provide satisfactory systems. However, further investment in self-sustaining quality assurance processes is required to underpin further reforms and continuing improvement. The ability to write self-critical and honest self-evaluations is a key indicator to the capacity for self-managing quality. Unfortunately, some self – assessment documents had deteriorated since 2001 and provided only bland assertions, which were unhelpful to the review and failed to provide a basis for sustained development. All of the universities had responded to the comments made in round one of the reviews.
98. The reviewers consider that the underlying issue behind many of the identified weaknesses is that departments do not take a strategic approach to ensuring that they have the necessary systems in place to know that they have the right learning outcomes, that they are providing the resources and learning opportunities necessary to achieve the outcomes and that they are assessing all of the outcomes at a level that assures them that the outcomes are being met. There is evidence that two universities are moving towards a strategic approach.
99. The following conclusions were directly related to this aspect in the last review.
- While there are effective systems throughout the universities to ensure that changes to the curriculum are properly discussed, the reviewers have concerns regarding the quality of some of the curriculum reviews.
  - Staff development is clearly important to many universities, and the best are providing opportunities for both teaching and research-oriented activities.





100. Across the eight universities, the average grade for this section is 3.25. The reports identified the following conclusions with respect to this aspect of the provisions:

#### **Strengths and areas of significant improvement**

- Several universities are beginning to view the work of their councils and the regulations as part of a unified whole, which will be documented in a quality assurance manual for the university;
- Department councils contribute significantly to quality management by undertaking academic planning and monitoring the courses and programmes;
- There is some evidence that universities are developing a broader range of computer science programmes;
- Several of the universities have improved their practice with regard to the monitoring of courses;
- Industrial input at a few institutions is strong, and they have established industrial liaison committees;
- At the best universities, student opinion is monitored and taken into consideration, there are good communication channels with the students and the students feel involved;
- Staff development for both new and existing faculty is now better established in the universities than at the time of the last review in terms of the number of activities, the range of activities and its organization;
- Over half the universities now have peer review of teaching schemes.

#### **Weaknesses**


- Universities would benefit from taking a strategic approach to providing and sustaining quality in all aspects of the programmes;
- Few universities involve outside academics or industrialists in the curriculum renewal process;
- With respect to courses, the level at which corrective action is triggered does not always appear to be appropriate;
- There is a need at most universities for a formal body at which students may raise operational issues with respect to their programme;
- Staff evaluation is a management-oriented process designed to achieve management objectives rather than staff development.

### **3.9 Recommendations**

101. There is clearly some progress in the quality of programmes, but also a need for further, continuing improvements. The following recommendations arise from the analysis and evaluation undertaken by the reviewers, building upon the identified strengths and the issues, and taking account of the instances of emerging good practice discussed in the text of the overview report. They are presented for further consideration by all universities in Jordan and in particular by the departments providing computer science programmes.

- a. Departments need to be more aware of the need for an active research programme that serves as the basis of the curriculum and teaching, and could with advantage link an emerging research strategy with a more fundamental review of their aims, and therefore their vision of the future of the discipline.
- b. All departments need to develop outcomes-related higher education, with particular reference





to programme specifications, the identification of intended learning outcomes, strategies for delivering them and for assuring the quality and academic standards that they represent. A skills matrix that documents the relationship between the intended learning outcomes and the courses is a valuable aid to documenting this process and to teaching.

- c. Within the context of programme specifications and intended learning outcomes, the departments need to develop the programme structures and strengthen the system of pre-requisites so that all students are adequately equipped to progress to more advanced courses. This in turn will ensure that the academic depth of the courses and the programme is always appropriate.
- d. The reviewers encourage all departments to identify their intended learning outcomes for programming and teach a core language, such as Java, with a heavy emphasis on problem-solving. Where a major aim of the provider is to produce graduates who are skilled applications programmers, this core language could be applied to a wide range of problem domains and environments, for example, small imperative programmes.
- e. The reviewers encourage all instructors to reconsider their approaches to teaching and learning. The aim should be to ensure that students not only know and understand the material delivered by the instructors and be able to apply it to a variety of situations, but also that they explore material related to the learning outcomes in an independent manner to suit their own learning requirements. To this end, the use of overhead projectors, data shows and similar technology and improved teaching techniques could provide a richer experience for the students and enhance their learning experience. The learning dimension also needs to be addressed: in particular, the encouragement of independent learning and wider reading.
- f. Departments need to define an assessment framework that enables the level of achievement of the intended learning outcomes to be measured and determined. To reach this state, the assessment framework needs to be made more flexible, aligned with the stated aims and intended learning outcomes, and each course should include a schedule showing how each learning outcome, skills and knowledge will be assessed using an appropriate method and at an appropriate academic level;
- g. Departments need to move to assessments which require students to demonstrate that they are able to evaluate and to use the knowledge and skills acquired in the courses. To achieve this, assignments and examinations should test that they have understood the material and can use it, that they have achieved an appropriate academic depth and that good students are given the chance to demonstrate their ability.
- h. Departments need to ensure transparency and the application of best practice with regards to the organization, marking, internal and external moderation and feedback of all assessments.
- i. Departments need to monitor the progress, completion and employment of students in a systematic way and with due regard to special groups of students. Nationally, there needs to be a common scheme so that all departments have to monitor and report student progress in a uniform manner which is amenable to direct comparisons between individual universities by the general public;
- j. Instructors need to ensure that the graduate skills related to research and enquiry are embedded in the activities of all students, and that these are demonstrated to a high degree in the graduation project, which should always show good evidence of background reading and investigation, analysis and design, referencing, and critical evaluation.
- k. All universities need to investigate fully and at a fundamental level the reasons behind the poor average graduation profile of students and rectify this situation.





- l. Departments should consider the introduction of more organized tutorials to ensure that all students are formally required to attend such activities and staff are relieved of some of the ad hoc support activities.
- m. Universities need to do more to ensure that their graduates gain appropriate employment.
- n. Departments should ensure that the resources needed by students to undertake each course are defined in the learning outcomes and are made available to students in ways which make them useable by students, and that students are required to use all of the resources in order to achieve the learning outcomes. Such resources will include computers, the Internet and the library.
- o. Universities and departments need to ensure that there are sufficient well-qualified staff to undertake scholarly activities, including research, teach the courses and provide academic advice. Additionally, the staff need sufficient time to undertake research in order for the promotion scheme to actually work and ensure that there are sufficient senior staff in departments to provide academic leadership.
- p. All universities should consider defining a staff development strategy together with the processes necessary to ensure that the strategy succeeds, thereby; ensuring that all of its courses are well taught, that learning is enabled and that assessment ensures that academic standards are appropriate.
- q. Departments need to define a framework for ensuring and sustaining the academic quality of their programmes. Programme specifications and learning outcomes provide a benchmark against which the departments' achievement can be measured. These need to be continually refreshed in collaboration with the students, the employing community and other stakeholders. This measurement, coupled with critical awareness and processes to ensure that corrective action is under taken as needed, can form a basis for sustainable academic quality.
- r. Nationally, the reviewers continue to believe that Jordan needs to establish its own PhD programmes and to enhance its master's provision by allowing the development of such programmes at any university which has the wish and capability to do so. In addition, a forum for collaboration between the universities is needed so that they can all enhance their standards to match or exceed those of their foreign competitors.



## Annexes

### Annex A: Participating Universities in the Computer Science Review (Round 2) in alphabetical order

- Al AlBayt University
- Al Isra University
- AlAhliyya Amman UniversityAl-Ahliyya Amman University
- Jordan University of Science and Technology
- Philadelphia University
- Princess Sumaya University of Technology
- The University of Jordan
- Zarka Private University

### Annex B: Reviewers

- Professor Terence Baylis
- Dr Richard Beeby
- Eur Ing Dr Anthony Cowling
- Professor Rae A. Earnshaw
- Dr Anne James
- Professor Fairouz Dib Kamareddine
- Professor Dianne Meehan
- Professor Dilipkumar Patel
- Professor Sunil Vadera

### Annex C: References and Internet sites

Link to the home page of the Quality Assurance Agency for Higher Education:

<http://qaa.ac.uk/>

Link to programme specification page of QAA web site:

<http://www.qaa.ac.uk/crntwork/progspec/contents.htm>

Link to the QAA codes of practice on External Examining, Assessment etc.:

<http://www.qaa.ac.uk/public/cop/codesofpractice.htm>

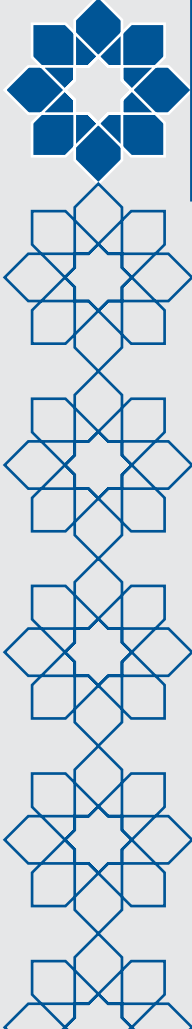
Link to the ACM/IEEE 2001 Computer Science Curriculum:

[www.computer.org/education/cc2001/](http://www.computer.org/education/cc2001/)









# Quality Assessment of Business Administration Programmes in Seven (7) Jordanian Universities

## **Subject Overview Report**

**Prepared by:**

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**(HFE Consultant, Business Administration Review Project)**

January 2004





## 1. Quality Assessment of Business Administration (Round 1)

Seven business administration programmes at seven Jordanian universities were reviewed under the auspices of the Hussein Fund for Excellence (HFE), together with support from the Quality Assurance Agency for Higher Education (QAA) in the UK. The HFE was established in 1999 to promote excellence, encourage innovation and endorse sustainable development in the Hashemite Kingdom of Jordan.

The review visits took place from October to December, 2003. They were based on the QAA's published subject review process with elements from the QAA's and were customized to meet national requirements. The HFE provided a workshop to assist participating universities in the preparation of self-evaluation documents (SED) and programme specifications for their participating programmes. All the universities provided an SED together with, in six cases, programme specifications as a basis for the review visit to each university. Review teams, introduced by the QAA, consisted of three experienced peer reviewers of which one was a review coordinator. The Review Teams conducted the site visits and prepared the review reports. The seven review reports on the business administration programmes and the review team meetings undertaken in Jordan and London form the basis for this overview report.

## 2. The main features of the review method

### 2.1 Review against aims and objectives (intended learning outcomes)

The Jordanian Higher Education Accreditation Council Commission ensures a degree of uniformity among the universities participating in the reviews of business administration programmes. However, the seven universities vary in size, subject provision, history and mission. Four of the participating universities under review are private and three are official (public). With the arrangements for accreditation, each university has a degree of autonomy to determine its specific aims and objectives at subject level.

Subject review is carried out in relation to the subject aims and objectives (intended learning outcomes) set by the university. It measures the extent to which each subject provider is successful at achieving its aims and objectives (intended learning outcomes).

### 2.2 Review of student learning experience and student achievement

Subject review examines the influences that shape the learning experiences and achievements of the business administration students. It covers the teaching and learning activities including some direct observation of teaching, the methods used for assessing the quality and standard of student work, examining actual student work and achievement, the curriculum, staff and staff development, student support and guidance, the application of resources (library, information technology (IT), and equipment), and the quality processes. This range of activities is captured within a core of six aspects of provision, each graded on a scale of 1 to 4.





The six aspects are:

1. Curriculum Design, Content and Organisation.
2. Teaching, Learning and Assessment.
3. Student Progression and Achievement.
4. Student Support and Guidance.
5. Learning Resources.
6. Quality Management and Enhancement.

### 2.3 Grading the six aspects of provision (the graded profile)

The graded profile shows:

- The extent to which the student's learning experience and the academic standards achieved demonstrate that the aims set by the university for the business administration programme are being met;
- The extent to which each aspect makes a contribution to the achievement of the declared objectives (intended learning outcomes).

All six aspects in the profile have equal weighting. The creation of the graded profile is achieved by applying a grade to each aspect of provision. There are four numerical grades – 1, 2, 3 and 4, with 4 as the top grade. The assignment of the grade is a matter of professional judgement by the review team, drawing on their solid experience in the field coupled with the evidence provided by the university.

The review teams apply the following criteria in awarding a grade:

**Grade 1:** The aims and/or the objectives set by the university are not met; there are major shortcomings that must be rectified.


**Grade 2:** This aspect makes an acceptable contribution to the attainment of the stated objectives; yet significant improvement could be made.  
The aims set by the university are broadly met.

**Grade 3:** This aspect makes a substantial contribution to the attainment of the stated objectives; however, there is scope for improvement.  
The aims set by the university are substantially met.

**Grade 4:** This aspect makes a full contribution to the attainment of the stated objectives.  
The aims set by the university are met.

If all grades in the profile are 2 or better, then the quality and standard of the business administration programme is 'approved'. To achieve 'excellent' status for being of a comparable international standard, the six profile grades added together must add up to at least 21 points and there should be no grades less than 3 in each provision in the profile.





After the review reports are completed, the review coordinators are requested to rank the universities in order of their achievement of their aims and objectives, with the prize awarded to the top university. The winning university's graded profile must achieve an 'excellent', in addition to the university's adoption of standards that are comparable to international standard, to be eligible for the prize. The review coordinators attending the final grading meeting score each provision on the basis of positive points and the need for improvements, as per the findings of the reviewers reflected in the individual report. The scores are then ranked and the top university identified.

## 2.4 Review by peers

All of the 11 reviewers that took part in this review cycle are academic and professional peers in business administration. Most are current members of staff at UK universities. Others are also specialists in business administration and are review coordinators in the UK employed by the QAA as team leaders. All reviewers are QAA-trained and are widely experienced in the review processes in the UK and overseas. In addition, the HFE provides briefings for the reviewers on the project, the SEDs, the programme specifications and the logistical arrangements. On the site visits, the review teams are supported by Jordanian translators.

## 2.5 Review comprising internal and external processes

The review process has several stages:

- The preparation of the SED by the university, based on the university's own aims and objectives for the business administration programme, and as set out in the structure provided by the six aspects of provision. The university is invited to nominate a senior member of the academic staff as an institutional nominee (facilitator).
- The preparation of programme specifications for business administration which describe the intended learning outcomes in terms of knowledge and understanding, skills and other attributes, and the means by which these outcomes are achieved by the students.
  - Two-and-a-half day review visit to each university. The visit will be carried out by a team of three reviewers including a review coordinator.
  - Daily review meetings by each team, in which all team members and the nominees, participate.
  - Final judgement meetings held by each team to decide on the grades to be awarded for each of the six aspects of provision. If each aspect is graded 2 or better, the quality and standard of the business administration programme is 'approved'.
  - Production of the review report, together with a short summary report, which are then sent to the HFE.
  - Production of the overview report, which is sent to the HFE.
  - Meeting comprising representatives of the HFE, the QAA, and the review coordinators to agree on the reports and graded profiles and to make recommendations to HFE on the award of the prize.



### 3. Summary of the Business Administration Subject Overview Report

Overall, the quality and academic standards of the business administration programmes reviewed in seven universities in Jordan are approved. Three of these universities are awarded at least 21 points across the six aspects of provision and two are judged to be of an acceptable international standard. Students from these programmes successfully obtain places on Master's and PhD programmes in Jordanian, European and United States universities. There is variation in quality and standards across the providers; this variation ranges from a provision that receives 22 points (grade average 3.7) and is highly commended, to one receiving only 16 points (grade average 2.7) and containing four grade 2s. Across all participants, 45 per cent of the aspects are awarded grade 4 (a high proportion), and 38 per cent are awarded grade 3. However, 7 aspects (17 per cent) are awarded only grade 2, where significant improvements are required. There is a difference in the grade averages between the public (official) and private sectors. The grade average for the three public universities is 3.5 and for the four private universities it is 3.2, with five of the seven grade 2s awarded in the private universities. The strongest aspect is Student Support and Guidance, where all providers are awarded grade 4s, followed by Learning Resources (grade average 3.8). The weakest aspect is Quality Management and Enhancement (grade average 2.7), followed by Teaching, Learning and Assessment and Student Progression and achievement. These aspects contain two grade 2s across the seven providers.

Each university has effective strategies in place for student support and guidance, and in all cases the students are well cared for. Both academic and pastoral support are provided at department level, with pastoral support and a range of services also provided at university level. The learning resources effectively support student learning. There are modern libraries with good accessibility and available computer rooms. The computer rooms are widespread and help support the introduction and development of e-learning. Accommodation is spacious with a range of teaching rooms including large lecture theatres. The curricula reflect the aims of the programmes. The curricula are structured; they have a more generic content in Years 1 and 2, but a more vocational content in Years 3 and 4, with the graduate project a feature in the final year in most cases. Overall, the quality of teaching is adequate. Some excellent classes were observed with staff research and consultancy supporting the teaching and learning experience in the best classes. Student progression rates are generally very good after Year 1 of the programmes. There is an overall awareness of the importance of quality and academic standards, with all providers seeking to introduce effective monitoring procedures and structures to ensure appropriate quality and academic standards. In the best cases, English, as well as Arabic, is widely and effectively used across the programmes.

The following recommendations are made for improving and continuously enhancing the quality, academic standards, and international standing of the reviewed business administration programmes:

- Each provider's aims and objectives (intended learning outcomes) included in their SED provide an essential reference point for the review and are published in the subject review report. The aims and objectives should be sufficiently clear to enable that the appropriate arrangements for the review visit are well planned and undertaken. In one case, only two aims and three objectives are





listed in the SED. Such aims and objectives are consequently very broad and barely adequate for the continuing evaluation and improvement of the students learning experience and achievements.

- All providers are asked to produce programme specifications. Most represent a significant step forward in quality enhancement and an immediate benefit of the HFE's review programme. One university chose not to produce one. Nevertheless, this is an important document underpinning quality management and enhancement, and containing essential information for staff, students and employers. It is recommended that programme specifications are more widely used.
- Academic progression should be evident in the four years (levels) of the curriculum, including the final-year graduation project. On some occasions, this is not the case, with final-year students producing work of a descriptive and inappropriate quality and standard, lacking in evaluation and analysis.
- The accreditation of university programmes are based on a set number of standards, significantly for curricular development. While in several instances, one in particular, where a dated and rigid curriculum is on offer. The accreditation process is valuable, nevertheless; it needs to allow flexibility for curricular development. It is evident in public universities that there is seemingly less restriction and a more appropriate curriculum in place containing more student evaluation analysis, and challenge. However, the accreditation process is undergoing significant change. This report supports the continuing reform of the accreditation process and the importance for universities to exercise their scope for discretion in curricular design and implementation.
- Work placement is a valuable component of the programme. However, this is not present in all programmes. It is too short in some programmes (for example, at one month), and rarely does it contribute formally to the final degree. It is recommended that work placement becomes a more formal feature of all four-year business programmes, made much longer, possibly for one year, and should contribute to the award of the degree.
- The overall quality of teaching and learning is adequate. However, teaching and learning methods are unduly restricted to lectures and seminars, with only limited student interaction. Universities should have appropriate written teaching and learning strategies together with staff development activities that support and monitor more innovative teaching and learning methods for the classroom. Best techniques for teaching and learning should be disseminated across the courses of the programmes, and across the universities.
- Assessment, though often rigorous, is too rigid. It focuses on formal examinations that cannot assess fully the range of intended learning outcomes identified in the programme specifications. Furthermore, university regulations permit only limited flexibility in the conduct of examinations. A wider range of assessment methods should be introduced, as it is being piloted at one university, to test the full range of student abilities in line with the stated learning objectives.
- Feedback is provided to students, but tends to be informal. Formal, written feedback should be systematically provided to all students on their work. The adoption of a common front-sheet, for example, should be considered and attached to the work to ensure clarity and transparency of feedback and to provide a formal record for future references.
- Programmes need to have full and current student progression data. The data might effectively track cohorts of students through each year of their four-year programmes. Recruitment numbers, transfers in and out, student achievement, and employment data should be accurately included, and all data should be evaluated and analysed after each semester and each year.



- In all universities, full programme information should be provided to prospective student applicants. It could be available through websites, as it is in two cases. It might, with benefit, also include the programme specifications which contain information on the curriculum, teaching and learning methods, assessment, and student support and guidance.
- While staff undertake research activities and consultancy, these activities are insufficient for ensuring that staff and their students are fully up-to-date and experienced in modern business practices. Staff development activities could, with benefit, include a programme of industrial secondments for staff updating on modern business practices, enhancing their teaching, and adding to curricular development.
- Quality management and assurance processes are variable across the providers. The recent appointment of specialist staff in quality assurance, as in one university, is already demonstrating benefits. Nevertheless, it is advised that, as in the recently introduced cases, well-documented procedures are in place at university, faculty and department levels that demonstrate the cycle of evaluation, action plans and improvements.
- All universities should consider introducing a formal system to ensure that academic standards are comparable to internationally recognized standards. In one case, a system of external examiners has been introduced and may prove to be an effective example. These examiners can provide an external view of quality and standards, and are also able to make comparisons with their own and other appropriate universities. They may also be used in a wider context to report on the curriculum, teaching methods, marking, and assessment. The use of 'critical friends' is a possible alternative.
- Significant further use of other external national and international benchmarks and sources of information could be made. In some providers, this is partly evident, but additional use of these international sources, benchmarks and comparators would provide universities with an added value. These might, for example, include the QAA Code of Practice, the QAA benchmark statement for General Business and Management undergraduate honours programmes, the QAA guidelines for preparing programme specifications, the recent Higher Education Funding Council for England (HEFCE)'s Information on Quality and Standards in Higher Education report, the Major Field Tests developed by the US-based Educational Testing Service, and guidelines from professional associations.
- Currently, there is considerable variation in the use of and proficiency in English language throughout the teaching and learning experience, and requires significant improvement. English is the international business language. All providers should ensure that staff and students are proficient, confident and readily understood in using English, both orally and in writing. Nevertheless, it is also important that staff and students are proficient and confident in Arabic language to meet with the needs of the national and regional market place. The business programmes could effectively be taught in English as well as Arabic, with students producing specified work and projects in English, as in the best cases. This would assist universities in gaining both an international standard and an international standing for their business programmes, and thus would attract more international students. It would also assist graduates in obtaining employment.



## 4. Analysis and Evaluation of the Quality of Business Administration


### 4.1 Introduction

1. This overview report has been derived from the subject review reports for business administration (recently titled business management at Jordan University) of the seven review visits carried out by the review teams in 2003 (Annex A). Its main purposes are to highlight positive features, to emphasise on potential areas for improvement, and to assist in the dissemination of best practices.
2. The review of the quality and standards of business administration programmes was carried out by teams of subject specialist reviewers, each led by a review coordinator (Annex B). In all cases, the teams reached consensual judgements in light of each university's aims and objectives (intended learning outcomes) set out for students.
3. Business administration programmes are of direct economic importance to the Jordanian society, taking into consideration that large, multinational businesses are keen to recruit the best graduates irrespective of their country of origin. Jordanian universities, therefore, need to offer business education that can be compared favourably with best international practices and provide graduates with the required skills, knowledge and competencies to successfully compete in the business world. Such high quality programmes may also attract a larger number of good students from within Jordan and from foreign countries, again contributing to the Jordanian economy.
4. The programmes reviewed are originally based on the United States model, which aims at achieving significant breadth and also, to some extent, depth of the business administration programmes. The breadth, in part, is achieved by a number of courses (modules) that are within the national requirements such as Arabic, English and transferable skills. Breadth is also achieved by requiring students to study a number of electives which are broadly related to business administration. Depth is achieved in the remaining core courses, usually 50 to 60 per cent of the total, which are business-specific and contain some pre-requisites.
5. Of the seven universities visited, the University of Jordan is the oldest and largest (28,000 students) and has existed for over 40 years. Of the other universities, some, including the four private universities, have been established for about 10 years. The number of total enrolments for the business administration programmes across the participants ranges from 150 to more than 800 students, the largest numbers being in the public universities. The average total of enrolments in the public universities is 570 students, whereas that for the private universities is 250 students.

### 4.2 Aims and Objectives (Intended Learning Outcomes)

6. Typically, the aims are appropriately expressed, in a generic manner by which they could be applied throughout the full length of the business administration programmes. For example, some are related to problem solving, others to inculcating a spirit of research, and others to the acquisition of skills. Several include reference to business skills such as attaining communication






skills. In order to form judgements, the reviewers require the aims and objectives (intended learning outcomes) to be clear. This is the case with almost all providers. In one instance, however, only two aims and three objectives are listed in the SED, and this is minimal and barely adequate.

7. The learning objectives (intended learning outcomes) are listed in the SED in all seven cases. The University of Jordan is a good example. In addition, they are also detailed in the programme specifications under knowledge and understanding and under skills acquisition. They enable the reviewers to make judgements as to whether the students are completing the programmes and to whether the aims of the programmes are attainable and being achieved.
8. Six universities produced programme specifications with programme aims, programme learning outcomes, and programme structures. The remaining university produced additional material that could be readily transformed into programme specifications. Programme specifications enable universities to inform students, prospective students, staff, and employers about the business administration programmes. They also assist in assuring that appropriate academic standards are provided. To be effective, they need to be updated every year. Consequently, they are very useful documents and can be utilized for other uses than merely providing basic information. The Jordanian universities should, therefore, consider making more use of programme specifications and posting them on the university's website. They would help Jordan achieve its goals in business administration education and, subsequently, its economy. In order to be readily understood, they need to be written and presented in a user-friendly form.
9. The reviewers encourage all providers of business administration programmes to produce an appropriate range of aims and objectives, and for all to produce programme specifications with intended learning outcomes.

#### 4.3 Curriculum Design, Content and Organisation

10. This aspect made a full contribution to the attainment of the aims in three universities, where grade 4 was awarded. There is less consistency and scope for improvement in the other four universities where the grades awarded vary from 2 to 3. Three of the four are private universities. In all seven cases, the curriculum is designed for four years of study, though this may be extended to six years. In rare instances, such as at Yarmouk University, students can complete their programme in three to four years by attending summer schools. The number of credit hours is between 125 and 135 for the programmes. At the University of Jordan, for example, 126 credit hours are required to complete the programme, and these are obtained from 42 three-credit hour courses (modules).
11. Programmes tend to be based on the United States model. The reviewers found in several universities that the curriculum contained breadth, but lacked appropriate depth, including the final-year graduation project. This is particularly evident in those graded less than 4. Thus, in these cases there is limited academic progression with only a few pre-requisites demanded. Often, there is a lack of specialist pathways for students to select. The reviewers suggest that standards could be improved in these cases by increasing the depth in the curriculum, particularly in Years






3 and 4, having a stronger system of pre-requisites, and introducing specialist pathways such as in marketing or human resources management.

12. Programmes can comprise of up to 50 per cent of non-departmental courses. These are university-wide and faculty courses. The reviewers recognise this generic aim to provide a broad and rounded education. These courses can relate to national requirements, for example, the inclusion of English 1 and English 2. Additionally, Computer skills are a recently-added requirement. In some universities, these courses are included entirely in Years 1 and 2 of the four-years programme. However, with the inclusion of English courses in Years 1 and 2 rather than at the beginning of Year 1 and throughout the full length of the programme, may result in the student's lack of use and proficiency of English language in the later two years of the programme. This can disadvantage students in their studies and job applications for international work.
13. As part of the curriculum, the students may undertake work placement in most programmes. This is a valuable part of the programme, particularly for the day students, as it provides experience of the business world and problem-solving applications. It is normally an optional feature and does not attract credit hours. It tends to be for one month only. In the best instances, the business teaching staff provide a list of placement contacts to help their students secure an appropriate placement. In similar four-year European programmes, work placement is normally for one year. The students and employers stated to the reviewers that they wished that the placement becomes a more formal part of the curriculum and lasts for a longer period. The reviewers suggest that these requests should be fully considered by the departments and more formally built-into business administration programmes.
14. The Accreditation Committee of the Higher Education Council accredits the programmes at public and private universities. Overall, the curricula at the three public universities show some academic progression, and appear to be more flexible with courses in the first two years providing an appropriate foundation, whereas courses in the later years develop conceptual, analytical problem-solving and transferable skills. For example, at Yarmouk University there is evidence of this in the Small Business Management, International Business Management, and in the final-year Symposium (project). Curricular currency is maintained by regular review and, for example, this may lead to a new course in Contemporary Management Issues. At the Hashemite University, for example, the intended learning outcomes and the resultant skills that are developed in model building, problem solving, and in evaluation and analysis are at a significantly higher level in Years 3 and 4, also indicating academic progression.
15. There is a greater contrast in the curricula and the impact of the accreditation procedures between the private universities. At Philadelphia, recent innovations include a new core course in Business Ethics, and new elective courses in Risk Management, Crisis Management, and Special Topics. The introduction of the excellent Business Incubator Centre encourages the students to learn how to set up their own businesses, whereas in another private university, compliance with the accreditation process appears to have constrained curriculum design. The structure is dated and heavily technical in nature with limited opportunity for the students to study problem-






based courses or the emerging areas of managing change, organisational development, and entrepreneurship. Even though there is a relatively smaller intake of students, there is little flexibility, one pathway through the programme, no specialist routes and few electives.

16. In the best cases, the research activity and consultancy of the staff support the curriculum in maintaining currency and relevance. Research skills and study skills form part of the programme. The lecturers are proficient in English. The latest texts, often in English, are the recommended reading to support the curriculum. However, in most instances, greater and more formal input from external sources would benefit curriculum design. Such sources, for example, might include further reference to the QAA benchmark statement, the establishment of an employer's forum, and the introduction and wide use of external examiners or 'critical friends' to confirm academic standards are comparable with similar programmes worldwide.
17. The employers supported the programmes' curricula and found them to be relevant in all universities. Feedback from current and former students indicated a high level of satisfaction with the breadth of their programmes, and they confidently stated that they prepared them for employment.

#### 4.4 Teaching, Learning and Assessment

18. This is a weak aspect overall. Only in one university are the aims of the programme met fully and grade 4 is awarded. In four universities, the aims are substantially met and a grade 3 is awarded. There is significant scope for improvement in two universities awarded grade 2. Across the providers, the level of teaching and learning tends to be adequate, with weaknesses largely due to the narrow range of student assessment methods used and the quality of feedback to students. There is little difference in this aspect between public and private universities, apart from a generally wider use of English in teaching, learning and assessment in the public universities and smaller class sizes, between 10 and 40 students, in the private universities.
19. In the best instances, the approach to teaching, learning and assessment is informed and influenced by university policies. These approaches are discussed at university, faculty and departmental levels and result in explicit strategies for achieving programme aims and enabling the students to attain the learning outcomes outlined in the programme specifications. This teaching embeds a firm foundation of knowledge and understanding and enables the students to achieve appropriate academic, practical and transferable skills. The effectiveness could be improved in most universities if there were explicit written teaching, learning and assessment guidelines for staff.
20. The reviewers observed some high quality teaching and learning in the best instances, with examples of innovative approaches and classes that drew upon the research and consultancy of staff. The needs of the students were addressed effectively by using, for example, textbook materials set within a local or regional context that emphasised the relevance of the ideas to Jordanian business. There was a clear structure to the classes, explicit intended learning outcomes and enthusiastic delivery. Role-play, group work, student presentations, and references to






placement and employment were observed. Another observed strength was the peer tutoring of numerical courses at Al-Zaytoonah University. There is continuous encouragement for students to use modern and extensive libraries and on-line materials to support their classroom learning. This is also evident at the University of Jordan. At Hashemite University, 'Blackboard' is installed as a virtual learning environment. The workload overall is demanding and provides appropriate challenge to the students.

21. There is limited exposure to the use of English in some programmes, particularly in private universities. In some cases, just a few courses are taught in English. In other cases, none of the university or faculty courses is taught in English, which is the chosen language only in some of the 50 per cent that are departmental courses. It is clear that across the providers, there is considerable variation in English proficiency and confidence in using English by both staff and students. It tends to be stronger in the public universities, typically so at the University of Jordan. Often, the students stated to the reviewers that they wished to use English more in their programmes, recognising that it is the international business language. The reviewers endorse this and urge that both English and Arabic Language is adopted and used by both staff and students in all business administration programmes and that this should be monitored by the universities.
22. Assessment methods used across the providers are largely limited. In most programmes, as outlined in the programme specifications, examinations account for 90 per cent of assessments in the courses, with only 10 per cent for coursework. Lecturers are able, in one public university, to reduce this to 70 per cent, with permission from the Head of Department, to reflect the nature and level of the course. The reviewers recommend that there should be a better and more appropriate match of assessments to the intended learning outcomes, particularly when assessing skills and independent learning projects. Assessment criteria and feedback to students should be formally written, rather than merely through oral exchange, which is often currently used. Formally written feedback will enable students to build a personal record of their achievement of the learning outcomes and their progression throughout the programme. It could form a fuller basis for a student record of achievement, providing a complete record of student performance over the four years of their studies.
23. An example of good practice is being piloted at Philadelphia University, whereby the use of a wider range of assessment methods is being trialled. These include the assessment of case-studies, group work, graduate projects, and written coursework. Such use of a wide range of assessment methods allows for a more appropriate alignment with each course's intended learning outcomes and also the aims of the programme. It also enables the students to demonstrate a wider range of abilities, particularly the skills used in student presentations.


#### 4.5 Student Progression and Achievement

24. The grading for this aspect range from 4 to 2, with two universities receiving grade 4, three receiving grade 3, and two universities graded 2. This is a relatively weak aspect overall. Most self-evaluation documents contain aims that reflect a broad, general education in business administration, and these are at least broadly met for this aspect, even in the weakest universities. Nevertheless, significant improvements are required.



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25. Students are recruited through a dual system based on their results in the high school's Tawjihi or the GCE A-Level grades from private schools. At public universities, some 55 per cent enter through the national system and 45 per cent are recruited directly or internationally. Often, international student recruitment can be 10 per cent and, exceptionally, at the Applied Science University, it amounts to two-thirds and successfully reflects the University's mission to be a Pan-Arab University. This international intake adds to the richness of the overall learning experience. In some universities, 5 per cent of the intake are recruited from community colleges and granted admission exemptions. There is a broad gender balance of students across the business administration providers apart from the Applied Science University, where males account for 70 per cent of the students on the programme.
26. Entry levels vary between public and private universities. At the University of Jordan, the grade point average (GPA) is 89 per cent and the minimum entry is 65 per cent. At Yarmouk University it is above 85 per cent with the minimum also 65 per cent. In contrast, at private universities, the minimum entry is 55 per cent with a typical average GPA being some 65 per cent.
27. Student progression is a problem in Year 1 at several universities. There can be some 15 per cent withdrawals or transfers out of the programme. This may reflect the dual admissions system where some less academically experienced students are admitted directly and find the programme difficult. Some students admitted under the national system stated that they were admitted for programmes at universities they had not selected. This may also be a reason for some poor retention rates in Year 1. After the first year, retention rates greatly improve. For example, they represent 96 per cent at one of the universities. The reviewers recommend that the universities keep detailed progression data, and take effective action to evaluate and redress withdrawals. This should also apply where enrolments are falling.
28. The programmes are planned for a duration of four years. At the University of Jordan, more than 80 per cent complete in four years, whereas at Yarmouk, it is just over 50 per cent. At Philadelphia University, it is some 64 per cent, with 26 per cent taking longer, and 10 per cent withdrawing. It is the evening students, though often sponsored by employers, who take longer at Al-Zaytoonah University, and this may be a common feature across the providers. The reviewers recommend that all participating universities study the reasons behind the longer period of study amongst students and investigate those courses with a higher failure rate for corrective action.
29. The quality and standard of work produced at the public universities is often higher than at the private universities. For example, the final-year graduate projects are more likely to be research-based and contain evaluation and analysis. The best are of a very high and publishable quality. Here, the work is more likely to be produced in English and, where not, an English summary may be produced. There is less focus on technical skills and more on problem-solving and analytical abilities, thereby reflecting the aims of the programmes. With the intake requirements of private universities being lower and allowing the entry of some less academically experienced students, those completing their programmes successfully reflect considerable 'added value' in many cases. Here, there is a greater emphasis on technical skills rather than their application to problems,






evaluation and analysis, an exception being the Investment Management course at Philadelphia University. Typically, as at Zarqa University, the recent degree classifications are 2 per cent 'excellent', 8 per cent 'very good', 46 per cent 'good', and 44 per cent 'satisfactory'. Employers and former students complimented the student achievements at all seven universities. As mentioned previously, it could be of benefit for all departments to employ some form of system of external examining to report formally on the quality and academic standard of final-year work and degree awards.

30. Overall, there is a lack of data on student destinations. Often the data provided is vague. One university 'suggested' that 80 per cent of its graduates obtained employment within one year. Another university sent questionnaires to the graduates over several years and of the respondents (67 per cent), 82 per cent had obtained employment, and 75 per cent obtained employment within one year of graduation. The reviewers acknowledge that it is not easy to track student destinations, particularly if this is delayed for some time after the students have graduated, but they recommend that a systematic and immediate approach is adopted. There might be merit in considering such a development as a national project applying to all universities in Jordan.

#### 4.6 Student Support and Guidance

31. In all seven universities, a grade 4 is awarded in this aspect. This is the strongest aspect with all providers meeting their aims. There is a caring learning environment for the business administration students in all cases. At one university, Zarqa, an Islamic ethos has proved particularly attractive to students from a wide area.
32. All universities have strategies for support and guidance. Some are implemented at departmental level and others are university-wide. In the best cases, the policies and information are clearly documented. Philadelphia University provides an excellent brochure on its library that is clear and student-friendly, and this is an example of good practice, outlining all services that are available to the students. Al-Zaytoonah University provides a general guide in both Arabic and English. Such documents can be costly to produce, but the reviewers report positively on their effectiveness, admission processes and induction feature in all cases. Accurate and current information needs to be provided to prospective students and recent entrants. This can be supplied electronically as well as in handbooks. Hashemite University and The University of Jordan have developed websites to help convey this information. Programme specifications, if user-friendly, are also an excellent source of initial information.
33. At the departmental level, there are sound systems in place for academic and pastoral support. Often, an adviser is appointed to each student. The adviser undertakes both roles; monitoring student performance and providing pastoral advice where needed. Teaching staff are available during 'office hours' when students can meet with them; at Al-Zaytoonah University, these amount to seven hours per week for each staff member, and there is additional support for the graduate project. In all cases, there appears to be good communication and working relationships between staff and students. At Yarmouk University, in another example of good practice, the MBA students provide tutorial support in numerical courses, which is much appreciated by the undergraduates.






At one university, an adviser is provided only if the student attains 60 per cent GPA on the courses. This appears to provide an incentive to staff and students. Students, in some instances, find it difficult to obtain work placements. In these cases, students stated that they require more help and advice. The reviewers recommend that a more structured approach should be taken with work placements overall.

34. There are university-wide central services in all of the participating universities. These provide support for those students who may have physical disabilities or special learning needs. Counselling is offered where requested by students. In one university, psychological support is provided. International students are cared for specifically to help them adjust to their new learning environment. There are medical centres available in the universities. Postgraduate study advice is given on programmes available and entry requirements. Across the seven universities, career support is more variable. In some cases, it is informal, with advice and employer introductions provided by the academic advisers themselves. In other instances, it is more structured whereby a university career adviser provides guidance on interview techniques, on producing CVs, and arranging visits from employers.

#### 4.7 Learning Resources

35. Six universities are awarded grade 4 for this aspect and the remaining university a grade 3. This is the second strongest aspect across the providers; with learning resources substantially meeting the aims and effectively supporting the students in achieving the intended learning outcomes of their courses. There is an overall, good learning environment in every case. This should give potential students confidence in their choice of university to study business administration.
36. In all cases, there is a university-wide infrastructure for the provision of modern resources. There are planned investments in place and, in some cases, for example at Philadelphia University; there is an annual resource review. This enables the business administration students to be well supported in their learning experience by modern libraries, computing laboratories and equipment, accommodation on attractive campuses, well-qualified staff, and, as with the University of Jordan and the Applied Science University, some excellent sporting and social facilities.
37. The libraries are generally modern. They provide induction programmes and continuous support. There is staff liaison between the libraries and the departments. The opening hours are variable, with the best open 0800 to 2100 hours for five days plus Saturday mornings, thereby providing adequate access for both day and evening students. In all cases, the book and journal stock supports the business administration programmes, though in one university, there needs to be more English texts to support the use of English. The book-stocks also support the graduate projects. There are overnight book reserves for the key texts. There are adequate reading places. Integrated computers are readily available, though in one library students waited for a place. At their best, the library is widely used. For example, at the University of Jordan, 5,000-6,000 students are daily users, including the business administration students, contributing to an industrious and vibrant learning environment. However, the reviewers saw only limited use of the library at several universities during their review visits. In these cases, there is only limited referencing in student





written work. It may be helpful, where limited use is made of the libraries by the students, for the university to undertake an evaluation of the reasons and prepare an improvement plan.


38. There are generally adequate supplies of computers in all cases; however, there is heavy cyclical demand when students undertake coursework and graduate projects. At Al-Zaytoonah University, for example, there are eight faculty rooms each with 21 computers and a printer. Two of these rooms are open from 0800 to 2100 hours, with technical support. There is a three-year replacement programme. Software is in Arabic and English. At Hashemite University, the Students' Union has computers available for access. There is an overall ratio of one computer to 10 business students at Hashemite University. There is internet access and, at Philadelphia University, a distance-learning facility. However, generally there is a need for more web-based interactive learning materials across the providers.
39. Accommodation is spacious and located on attractive campuses. At Al-Zaytoonah University, the lecture rooms have 40 to 80 places, plus a large lecture theatre. However, external noise can be sometimes intrusive on the lectures. At Zarqa University, rooms have spaces for left-handed students. The provision of teaching aids in the classrooms is variable and occasionally barely adequate. Whiteboards and blackboards are normally available. Overhead projectors are available in some cases, as is power-Point and, in one case as a good example, 'Blackboard' is used. Some rooms would benefit from new paintwork. At two universities, some desks are fixed. This is a deterrent to any small group teaching where students may wish to sit in a different configuration for ease of communication and motivation.
40. Overall, the teaching staff are well qualified academically. Some are on short-term contracts, while permanent staff have tenure. The results of student questionnaires relate directly to staff advancement, as do the amount of research published and level of community service undertaken. There are mentoring schemes for new staff and scholarship schemes for those wishing to obtain a PhD qualification. With public universities, staff study for their PhD in the United States or the UK. In private universities, most PhDs are obtained from Jordanian universities, other Arab states' universities such as Iraq, and occasionally from European and United States' universities. Staff are research active and at Zarqa University 5 per cent of the University's budget is set aside for staff research. Across the providers, the staff-student ratio is about 1:15 for business courses, and much greater for university courses. These tend to be lower in private universities with relatively smaller intakes and in such cases small group teaching is more common. Overall, there are few female staff, yet there are many female students, sometimes over 50 per cent of the intake. This can create tutorial overload on those few female staff. Staff, although sometimes engaged in consultancy work, would benefit from planned secondments to industry to update themselves on current business practice. The English proficiency of staff is variable across the providers, with many in the public universities seemingly more confident. This needs monitoring in all universities and universities should conduct more staff development training that should be provided in English Language.



#### 4.8 Quality Management and Enhancement

41. This is the weakest aspect across the providers. Two universities are awarded grade 2, where significant improvement is required, and none are awarded grade 4. The characteristics are common to both public and private university sectors, though the two weakest performances are found in private universities.
42. In one of the best cases, Philadelphia University, faculty and department demonstrate a strong belief in the importance of quality management and enhancement. Specialist quality-assurance staff have been appointed. The teaching staff fully understand and participate in the quality assurance process. There is a structure in place with interconnecting committees for course review, programme review, student feedback, assessment process, and peer review of staff performance. External associations, including an external examiner, are linked to continuous improvement in quality and standards. Additionally, the faculty monitors the quality of staff and student recruitment, the quality of teaching and research, and the sufficiency of resources to finance improvements and enhancement. The assessment process is scrutinised by the department's Quality Management Agenda and the Monitoring Agenda. These characteristics of good practice deserve to be employed more widely.
43. At several universities quality management and enhancement processes are present at their early stages; however, further development is required. Many committees, including staff-student committees, hold meetings, except minutes are not always kept and students are not always informed of the actions taken and their resultant outcomes. Other committees work on a ad-hoc day-to-day basis only, without medium or long-term planning for improving the business administration programme. Although accreditation of the programmes takes place, it would also be helpful if the universities received a full report on the standards and quality of the programme so that they can build on their strengths and take action where weaknesses are identified. Student questionnaires are regularly used at the end of each semester, but it is not always clear what actions the department takes in from the student comments on their courses. Staff development often includes a mentoring system for new staff, peer review and appraisal of staff, and supporting staff to obtain PhDs and undertake research. These activities could, with benefit, be extended further in some universities to include teaching, learning and assessment methods in order to enhance the quality of learning across the programmes by all lecturers, teaching assistants, and instructors.
44. Limited use of external sources is made in the majority of the universities. For example, all universities have employer links; these could, with benefit, be expanded and formalised so that regular meetings take place and minutes are recorded. The employers could then comment formally on the currency of the curriculum, the standard of work, and the quality of the graduates produced. In most instances, external guidance and referencing are not used, though some informal contact may be made with other universities. It would be of benefit if all universities considered the appointment of external examiners, 'critical friends', or other external sources to evaluate and provide advice on the business administration programme. These could be used to support the process of maintaining appropriate benchmarks for quality and standards.






45. The production of the SEDs and, in most cases, programme specifications is very encouraging. The participating universities clearly invested much effort in preparing these important documents. They all provided a suitable basis for the reviews to be undertaken. They are, however, variable in their effectiveness. In the best instances, they are well structured, evaluative and analytical. Strengths and weaknesses are identified, together with action plans and outcomes to rectify the weaknesses and enhancement plans to build on the strengths. Cross-referencing is used and appropriate annexes appended. In contrast, other SEDs are almost entirely descriptive. It would have been beneficial if the sections on Quality Management and Enhancement not only described the quality processes but also included a diagram explaining these processes. Annexes might include accurate and detailed information on student progression, including transfers in and out. The programme specifications produced by six universities are clear. More, however, might be made of their uses to provide essential information to staff, students, prospective students and employers. For example, they might be listed on the university's website to provide readily accessible information. They could also serve as a template for periodic internal reports on the effectiveness of the degree programmes.

#### 4.9 Conclusions and Recommendations for Improvements

46. Overall, the quality of the business administration programmes, as measured against the participants' aims and learning objectives (intended learning outcomes), is at least satisfactory and in many cases good or very good. The provision in business administration is approved in all seven universities; however, there are notable variations in quality and standards across these universities. This ranges from a provision that is awarded 22 points (grade average 3.7), and is highly commended, to one receiving only 16 points (grade average 2.7) and containing four grade 2s. Across all participants, 45 per cent of the six aspects are awarded grade 4, a high proportion, and 38 per cent are awarded grade 3. 17 per cent of aspects are awarded grade 2, indicating some significant weaknesses. There is a difference in the grade averages between the public and private sectors. The grade average in the public universities is 3.5 and in the private universities it is 3.2, with five of the seven grade 2s awarded in the private universities.
47. The strongest common aspects featuring in virtually all participating universities are Student Support and Guidance and Learning Resources. Each university has effective strategies for student support and guidance, and in all programmes the students are well cared for. Both academic and pastoral support are provided at departmental level, with the latter also provided at university level. These work in harmony. The learning resources support the business administration students. There are modern, adequately stocked libraries, with good accessibility and available computer rooms. The computing resources are widespread and help support the introduction and development of e-learning. The accommodation is spacious with a range of teaching rooms including large lecture theatres. The Business Incubator Centre at Philadelphia University and the use of 'Blackboard' virtual learning environment at Hashemite University are examples of innovative and good practices. The aims set for the business administration programmes are appropriately generic overall and express broad educational purposes for the provision; the learning objectives (intended learning outcomes) are more clearly business-specific. There is a clear relationship between the stated aims and the objectives (intended learning outcomes) in all






cases. However, listing only two aims and three objectives in one SED is at best minimal and barely adequate for a significant four-year programme of study.

48. The Curriculum Design, Content and Organisation reflect the aims in most cases. The curricula are more generic in Years 1 and 2, but are profession-oriented in Years 3 and 4, with the graduate project a feature of the final year in most programmes. There tends to be more flexibility in the public universities and a greater recognition of the higher skills of problem solving, evaluation and analysis, with evidence of academic progression through the programme. The programmes offered by the private universities are similarly accredited, but this is perceived by some universities to constrain curriculum development, resulting in rigid and more dated curricula offered. To maintain the relevance and currency of the curricula in a rapidly-changing discipline such as business administration, it is important for universities to encourage departments to exercise their true scope for discretion in curricular design and implementation within their terms of reference and regulations. Two participating private universities, Philadelphia and Applied Science Universities, have been creative and innovative in offering more appropriate curricula for the business world.
49. The quality of the teaching is generally adequate. Some excellent classes were observed, with students involved and motivated. Staff research and consultancy support the teaching and learning experiences in the best cases. However, assessment methods are often less appropriate, with rigid focus virtually entirely on assessment through examinations. One university, Philadelphia, is piloting a wider range of assessment methods, allowing students to be tested more effectively on their abilities.
50. Student Progression and Achievement is generally a weak aspect. There are often retention problems in Year 1, though thereafter progression rates are good. The programmes are planned for four years of study, but a significant proportion of students take longer. The standard of work produced varies across the providers. On some occasions, even in the final year, work can be descriptive rather than analytical. Academic progression is seemingly minimal across the four years in several programmes. However, in the best cases, excellent graduate projects of publishable quality are produced and in English. The proficiency in English is variable across the providers. At best, such as at the University of Jordan, it is very good and considerably effective. Too often, however, the students, including final-year students, find it difficult to write coherently and to hold a business discussion in English. In some cases, the staff are not confident in their use of English and revert to Arabic. This is not satisfactory for students embarking on an international business career.
51. Quality Management and Enhancement is the weakest aspect, it is noticeable that quality processes and procedures are variable in their effectiveness. There is, however, an overall awareness of their importance and in many cases quality management units have been recently established at the universities. In the best cases, there are quality management systems in place at university, faculty, and departmental levels which are interconnected. Specialist quality assurance staff are appointed to offer advice, to monitor the processes, to produce minutes of meetings, write





reports, and provide staff development training. In the less successful cases, the procedures need to be formalised as many of them are vague and unchecked. Greater use should be made of external reference points and, for example, consideration might be given to appointing external examiners or 'critical friends' for the programmes. Links with employers and alumni also need to be formalised with committees established and regular meetings held.

52. Other recommendations for the enhancement of the business administration provision include:

- a. The work placements of over a one-month period are too short to be fully effective. Therefore it would be an improvement if work placements were arranged for a longer period of time and were formalised and adopted as part of the curriculum, whereby they become mandatory and are included within the credit hours calculations. On similar four-year vocational programmes in the UK and Europe, a one-year work placement is designed as an integral part of the curriculum.
- b. Some excellent teaching was observed which was coupled with fully motivated and involved students. However, other teaching methods were restricted to formal lectures and seminars, often with little interaction with the students. It would be helpful in such cases for the university to produce a written teaching and learning strategy, employing a more appropriate, wider range of methods that are accompanied by a relevant staff development program to include teaching and learning methods.
- c. A wider adoption of a range of assessment methods should be considered. Currently, the focus on assessment by formal examinations is restrictive and does not fully test student abilities. The systems used in European countries, and being tested at Philadelphia University, include a greater assessment weighting for student work, such as; dissertations and projects, group work, presentations, and work placements. Additionally, student work is normally marked promptly and students are informed about their achievements and grades. In most cases this feedback is informal only. The reviewers recommend that formal, written feedback is provided to students and perhaps, for example, the adoption of a standard front-sheet be considered and attached to all student work.
- d. There is a clear need for producing current student progression data, thereby enabling staff to track progression and take action where needed. The data should track, if possible, cohorts of students through each year of their four-year programme. Transfers in and transfers out should be included. Universities also need to formalise their tracking of students upon completing their programmes. It is best undertaken immediately once the students graduate and to follow up persistently when information is not immediately forthcoming from the students. Questionnaires are the normal method for collecting this data, but alumni associations can also prove helpful in tracking student work destinations. In addition, the participating universities need to establish routine methods of analysing the resultant information and to ensure that appropriate actions are taken and monitored.
- e. Student guidance should extend to the period before enrolment. It is important that future applicants have a wide range of current information about the programme and its organisation. In several cases, this is being provided by universities through their website. However, all universities should consider developing a website and loading it with the relevant information. Listing the programme specifications on the website would provide prospective students with important and relevant information about the programme, including the curriculum and assessment methods, to assist them in making their study choices.



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- f. Overall, the staff are well qualified to undertake their teaching. There are opportunities available for further research and, where warranted, study for PhDs. They have informal contacts with industry and undertake consultancy work. However, it would be beneficial for their teaching if regular and planned secondments to industry were available as part of staff development. This would help ensure that staff had current experience of modern business practices which could be used to inform their teaching and update and enhance the curriculum.
- g. More use should be made of external sources to improve confidence in the relevance of the programmes and sustain continuing improvements. These sources include the employing community and other external reference points. All of the universities might ensure, if not currently operating, that an effective external referencing system is introduced, one which not only provides reports on academic standards, but also on the curriculum, student assessment and marking schemes. These would assist with gaining both international standards and international standing for the business administration programmes. For example, more use might be made of the QAA benchmark statement for General Business and Management. Here, there is guidance on knowledge and understanding, skills required, teaching and learning, and standards of achievement. This document usefully provides an international benchmark for all undergraduate business honours programmes. Other external sources could include the Major Field Test developed by the US-based Educational Testing Service or the guidelines produced by professional associations.
- h. The recent HEFCE publication, Information on Quality and Standards in Higher Education report, is also a useful source for universities in developing student data sets. This contains guidance on providing information for students and the public which should be available in universities. It includes details on recording student progression, on recording feedback from students, on assessment procedures, and on programme specifications. There is potential for a national project to identify the key performance indicators, drawing upon best international practices, and could inform the quality assurance processes in all universities.
- i. All of the seven universities within this project aim to provide business education that is in line with international standards, to recruit high quality students, attract students from overseas, and to produce graduates of international standing. Reiterating one of the recommendations above, these universities should ensure that the business programmes continue to use English and Arabic languages, throughout the full length of the programme, and ensure that students and staff are supported in enhancing their proficiency of both languages, developing their confidence and ensure that they are readily understood when using English, both orally and in writing.





## Annexes

### Annex A: Universities participating in this review

- Al-Zaytoonah University
- Applied Science University
- Hashemite University
- Philadelphia University
- University of Jordan
- Yarmouk University
- Zarqa University

### Annex B: Reviewers

- Michael Bourn
- Jeff Butel (Review Coordinator)
- Linda Carr
- Peter Clarke (Review Coordinator)
- Tony Greenhalgh
- Nigel Hall (Review Coordinator)
- Linda McCormack
- Tony Pugh
- Johnathan Slack
- Carol Vielba
- Nick Wiseman





# Quality Assessment of Business Administration Programmes in Five (5) Jordanian Universities

## Subject Overview Report

**Prepared by:**

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**(HFE Consultant, Business Administration Review Project)**

July 2005







## 1. Quality Assessment of Business Administration (Round 2)

The business administration programmes at five Jordanian universities, including one re-visit, were reviewed under the auspices of the Hussein Fund for Excellence (HFE), together with support from the Quality Assurance Agency for Higher Education (QAA) in the UK. The HFE was established in 1999 with the mission of promoting excellence, encouraging innovation and endorsing sustainable development in the Hashemite Kingdom of Jordan.. This second review programme in business administration was conducted as a result of requests from universities unable to take part in the first round in 2002-03. The re-visit to one university, arranged by the HFE, was to evaluate the progress made and improvements accomplished by the universities that participated in first review in 2003 (round 1), as a result of the recommendations set forth by the review team in the individual report and the over view report.

The review site-visits took place in May, 2005. They were based on the QAA's published subject review process, adapted to meet Jordanian national requirements, with elements from the QAA's current academic review and developmental engagement processes. The HFE provided a workshop to assist participating universities in the preparation of self-evaluation documents (SED) and programme specifications. All the universities provided an SED as a basis for the review visit to each university. Three universities provided effective programme specifications, and one provided brief additional information. Of the five reviews undertaken, three were first-time reviews, one was a second review at the request of the university, and one was a re-visit because of low grades awarded to the university in 2003. Review teams, introduced by the QAA, consisted of three experienced peer reviewers of which one was a review coordinator; they conducted the site visits and prepared the review reports. In the case of the re-visit, the team comprised a coordinator and one reviewer. The five review reports on the business administration programmes and the review team meetings undertaken in Jordan and London form the basis for this overview report.

## 2. The main features of the review method

### 2.1 Review against aims and objectives (intended learning outcomes)

The Jordanian Higher Education Accreditation Council ensures a degree of uniformity on the universities participating in the reviews of business administration programmes. However, within the arrangements for accreditation, each university has a degree of autonomy to determine its specific aims and objectives at subject level. The five universities vary in size, overall subject provision, history and mission. Three of the participating universities under review are private and two are formal (public).

Subject review is carried out in relation to the subject aims and objectives (intended learning outcomes) set by each university. Subject review measures the extent to which each subject provider is successful in achieving its aims and objectives (intended learning outcomes).



## 2.2 Review of student learning experience and student achievement

Subject review also examines the influences that shape the student learning experiences and achievements. It covers the teaching and learning activities including some direct observation of teaching, the methods used for assessing the quality and standard of student work, examining actual student work and achievement, the curriculum, staff and staff development, student support and guidance, the quality and use of resources (classroom and other accommodation, library, information technology (IT), and other equipment), and the quality management processes. This range of activities is captured within a core of six aspects of provision, each graded on the scale of 1 to 4, with 4 as the top grade.

The six aspects are:

1. Curriculum Design, Content and Organisation
2. Teaching, Learning and Assessment
3. Student Progression and Achievement
4. Student Support and Guidance
5. Learning Resources
6. Quality Management and Enhancement

## 2.3 Grading the six aspects of provision (the graded profile)

The graded profile shows:

- The extent to which the student's learning experience and the academic standards achieved demonstrate that the aims set by the university for the business administration programme are being met;
- The extent to which each aspect makes a contribution to the achievement of the declared objectives (intended learning outcomes).

All six aspects in the profile have equal weighting. The creation of the graded profile is achieved by applying a grade to each aspect of provision. There are four numerical grades – 1, 2, 3 and 4. The assignment of the grade is a matter for the professional judgement of the review team, drawing on the evidence provided by the university.

The review teams apply the following criteria in awarding a grade:


**Grade 1:** The aims and/or the objectives set by the university are not met; there are major shortcomings that must be rectified.

**Grade 2:** This aspect makes an acceptable contribution to the attainment of the stated objectives, but significant improvement could be made. The aims set by the university are broadly met.

**Grade 3:** This aspect makes a substantial contribution to the attainment of the stated objectives; however, there is scope for improvement. The aims set by the university are substantially met.

**Grade 4:** This aspect makes a full contribution to the attainment of the stated objectives. The aims set by the university are met.





If all grades in the profile are 2 or better, then the quality and standard of the business administration programme is 'approved'. To achieve 'excellent' status for being of a comparable international standard, the six profile grades added together add up to at least 21 points and there should be no grades less than 3 in the profile. In this second round of reviews, those participants judged to be 'excellent' are eligible for the award of a trophy.

## 2.4 Review by peers

All of the six reviewers taking part are academic and professional peers in business administration. Two of the six are team coordinators and the others are subject specialists. All are QAA trained and are widely experienced in the review processes in the UK and overseas, including participation in the first review programme by the HFE in 2002-03. In addition, the HFE provides briefings for the reviewers on the project, the SEDs, the programme specifications and the logistical arrangements. On the site visits, the review teams are supported by professional interpreters.

## 2.5 Review comprising internal and external processes

The review process has several stages:

- The preparation of the SED by the university, based on the university's own aims and objectives for the business administration programme, and as set out in the structure provided by the six aspects of provision. The university is also invited to nominate a senior member of the academic staff as an institutional nominee (facilitator).
- The preparation of programme specifications for business administration which describe the intended learning outcomes in terms of knowledge and understanding, skills and other attributes and the means by which these outcomes are achieved by the students.
- The one university subject to a re-visit prepares an Improvement Plan outlining improvements made and being made since its Round 1 review, some 18 months ago in 2003.
- Two-and-a-half day review site-visit carried out by a team of three reviewers including a review coordinator to four universities; a one-day review site-visit in the case of the re-visit.
- Daily review meetings by each team in which all team members and the nominees participate.
- Final judgement meetings held by each team to decide on the grades to be awarded for each of the six aspects. If each aspect is graded 2 or better, the quality and standard of the business administration programme is 'approved'. In the case of the re-visit, the original grades remain, but an additional grade (again 1 – 4) is provided to the university showing the amount of improvement that is made.
- Production of the review reports, together with a short summary report, which are then sent to the HFE.
- Production of the overview report based on the five review reports, which is sent to the HFE.
- Verification meeting comprising of representatives of the HFE, the QAA, and the review coordinators to agree on the reports and graded profiles and to make recommendations to HFE on the award of a trophy, if applicable.



### 3. Summary of the Business Administration Subject Overview Report

Four universities participated in this second review programme for educational programmes in Business administration. A fifth university, following the outcome of the first review reported in 2003, made arrangements with the HFE for a follow-up review to assess the progress made and improvements accomplished by the university on the understanding that there would not be a re-grading of the profile.

Overall, the quality and academic standards of the business administration programmes reviewed in the four universities (Annex A) in Jordan are approved. Two of these universities are awarded 21 points or more across the six aspects and are judged to be of a comparable international standard. Students from these programmes successfully obtain places on masters and PhD programmes in Jordanian, European and United States universities. However, there is variation in quality and standards across the providers; this ranges from a provision that receives 22 points (grade average 3.66) and is commended to one receiving only 17 points (grade average 2.83) and containing two grade 2s. Across all participants, 37.5 per cent of the aspects are awarded grade 4 and 54.2 per cent are awarded grade 3. There are two grade 2s (8.3 per cent) awarded, where significant improvement is required. The strongest aspect is Student Support and Guidance, where all providers are awarded grade 4s, followed by Learning Resources (grade average 3.5). The weakest aspects are Teaching, Learning and Assessment (grade average 3.00), Student Progress and Achievement (grade average 3.0), and Quality Management and Enhancement (grade average 3.0). Curriculum Design, Content and Organisation has grade averages of 3.25.

The curricula reflect the aims of the programmes. Three of the reviewed programmes have programme specifications in place with learning outcomes that relate to the aims. The curricula are structured; they have a more generic content in Years 1 and 2, but a more vocational content in Years 3 and 4, with the graduate project often a feature in the final year. The quality of teaching seen by reviewers was good in the majority of cases. Student progression and achievement rates are generally good. Each university has effective strategies in place for student support and guidance and in all cases the students are well cared for. Both academic and pastoral support are provided at department level, with pastoral support and a range of services also provided at university level. The learning resources effectively support student learning. There are modern libraries with good accessibility and available computer rooms. Accessible computer rooms are widespread throughout the universities and help support the introduction and development of e-learning. The classroom accommodation, though dated and in need of refurbishment, is adequate. Two providers have modern data-show equipment to assist teaching and learning. Staff numbers, in all but one case, are sufficient to deliver the programmes. There is an overall awareness of the importance of quality and academic standards, with all providers seeking to introduce effective monitoring procedures and structures to ensure that appropriate quality and academic standards are in place. In the best cases, English, as well as Arabic languages, are used across the programmes, though in general there could be better proficiency in using English language if it is to meet the stated aims and objectives of the university.





Overall, the second review programme reveals an improvement in the internal processes of self-evaluation and internal arrangements for specifying and reporting on quality. The following recommendations are made to inform and support further improvements to and continuing enhancement of quality, academic standards, and international standing for the business administration programmes in the Kingdom:

- Each provider's aims and objectives (intended learning outcomes) included in their SED provide an essential reference point for the review and are published in each subject review report. The aims and objectives were sufficiently clear to enable the review visits to be planned and undertaken in an efficient and effective manner. In one case, there was a long and sub-divided list of objectives which, although appropriate, occasionally just replicated the aims.
- All providers were asked to produce programme specifications. Three did so and one provided additional information. This is an important document underpinning quality management and enhancement, and containing essential information for staff, students and employers. It is recommended that universities introduce programme specifications for all programmes.
- Academic progression should be evident in the four years (levels) of the curriculum including the final-year graduate project. Occasionally, this is not the case, with final-year students sometimes producing work of a descriptive and inappropriate standard, lacking in evaluation and analysis and some students occasionally selecting inappropriately less challenging elective courses.
- Work placement, particularly when associated with giving greater insights into practical and applied business methods, represents good practice. It is recommended that it becomes a more formal feature of all four-year business programmes. Improved and sustained engagement with industry, for example by establishing a formal consultative committee or group, could assist students in finding work placements and staff in enhancing the vocational relevance of the curricula.
- The universities have teaching and learning strategies (though not always written ones) supported, in the best cases, with staff development activities. However, these activities should include teaching and learning methodology and quality assurance practices, in addition to discussing staff research papers.
- Assessment of students' attainments, though informed by regulations and often rigorous, is on occasion applied too rigidly. It currently focuses on formal examinations that cannot always fully assess the range of intended learning outcomes identified in the programme specifications and the students' levels of achievement. A wider range of assessment methods should be considered to test the full range of students' abilities in line with the stated intended learning outcomes.
- Oral feedback is provided to students on their work and this is effective and valued by the students. However, more structured, written feedback should also be provided systematically to all students on their work to ensure a lasting record and dependable information on student progress.
- Student data is collected; however, staff engaged in the educational programme need to collect more detailed and comprehensive data. The data might effectively track cohorts of students through each year of their four-year programmes. Enrolment numbers, transfers in and out, progression each year, student achievement, and first employment data might be included and all data should be evaluated and analysed at least annually. There is scope for the development of performance indicators. This would support institutions in their individual efforts to improve their performance management and promote excellence.



- Quality management and assurance processes are present in all cases. In one instance they need to be made more transparent in respect of lines of responsibility, key dates for evaluation within the annual quality cycle, and setting quality and standards targets.
- Universities should consider introducing a more systematic approach to ensure academic standards are comparable to internationally recognized standards. This can be undertaken by formal benchmarking, as is undertaken in one university. In another institution, a system of external examiners or 'critical friends' is being considered as part of their academic infrastructure. These examiners or 'critical friends' can provide an external view of quality and standards, and are also able to make comparisons with their own and other appropriate institutions.
- Currently, the use of and proficiency in English language is variable across the providers and requires an overall significant improvement to satisfy the stated aims and objectives. English is the international business language. All providers should ensure that staff and students are proficient, confident and readily understood in using English, both orally and in written form, as well as Arabic. In one case, there is a parallel programme taught entirely in English and this might, with benefit, be considered for other business programmes. Whereas, in another case, only two courses are taught using English.


In the fifth university where the business administration programme was subject to a one day re-visit, significant improvements have been made by the University based on its improvement plan developed in 2003. The reviewers confirm the value of these developments. The programme is awarded grade 4 out of a possible 4 for measurable progress and impact, an additional grading employed for such cases. The reviewers are satisfied with the overall quality and standards now being achieved. There are still areas for continuing improvement and these include the need to ensure that all student work is of an appropriate standard, staff receive more business-related experience, there is further refinement of student progression data, there is greater formalisation of post-assessment moderation of student work, and the development of an inter-library loans system is undertaken.

## 4. Analysis and Evaluation of the Quality of Business Administration

### 4.1 Introduction

1. This overview report has been derived from the subject review reports for business administration of the four full review visits and one re-visit, carried out in 2005 (Annex A). Its main purposes are to highlight positive features, to emphasise potential areas for improvement, and to assist in the dissemination of best practices.
2. The review of the quality and standards of business administration programmes was carried out by teams of subject specialist reviewers, each led by a review coordinator (Annex B). In all cases, each team reached consensual judgements in light of each university's aims and the objectives (intended learning outcomes) set for students.
3. Business administration programmes are of direct economic and social importance for Jordanian society. Large, multinational businesses are able to recruit the best graduates irrespective of





their country of origin. Jordan's universities, therefore, need to offer a business education which compares favourably with best international practices and provides graduates who can compete successfully in the business world. Such high quality programmes may also attract a larger number of good students from within Jordan and from foreign countries, again assisting the Jordanian economy.


#### 4.2 Aims and Objectives (Intended Learning Outcomes)

4. In order to form judgements on the quality and standards of the programmes, the reviewers require the aims and objectives (intended learning outcomes) to be clear. In all four cases, the aims are appropriately expressed in a general way. For example, these relate to providing high quality education, producing skilled graduates to meet market demands and acquiring and enhancing a full range of skills including information technology (IT) skills. They also include inculcating a commitment to research and, in one case, this includes staff research. Gaining knowledge and understanding feature in all aims. In some cases, the aims are supplemented by the university's educational aims for all of its students and relate to the principles of Islam.
5. The learning objectives (intended learning outcomes) are listed in the four SEDs. These are clear, but in one SED, the list is long and is subdivided. In this case, although most are clear, there are some which seem to be only extensions of the aims and could be more specific. The objectives of the programmes are appropriately outlined in the programme specifications in two cases, and additional information supplemented the SED in a third case. In the fourth university, no programme specifications were available, though the unpublished SED contains intended learning outcomes (ILOs). Overall, the objectives enable the reviewers to make judgements as to whether the students are completing the programmes and to whether the aims of the programmes are attainable and being achieved.
6. In general, the reviewers are encouraged by the four Universities' production of aims and objectives, outlined in their SEDs. All, however, should have produced programme specifications as they are essential elements of the processes of quality assurance and enhancement. The institution subject to the re-visit, although not required to do so, prepared a new SED.


#### 4.3 Curriculum Design, Content and Organisation

7. This aspect makes a full contribution to the attainment of the aims in one university and grade 4 is awarded. Grade 3 is awarded to the other three universities and there is scope for improvement. Overall, this is the third strongest aspect.
8. The programmes have broad-based curricula which cover a wide range of business and management subjects relevant to different types of organisations. Skills are embedded in the curricula, providing students with competencies such as problem-solving, analysis and team working. Programmes are structured around four components, namely university requirements, faculty requirements, fundamental course in business and management, and electives. In general, the programmes count for some 130 credit hours spread over four years of study. They are offered on a day or evening basis, with day attendance being more popular.



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9. The common structure adopted by the universities entails that the first two academic years provide a foundation for students in terms of more general knowledge and understanding, together with information technology (IT) skills, needed for later specialisation and the application of analysis, evaluation, and research activities in Years 3 and 4 and for the graduate project. To allow for flexibility and choice, there are systems of pre-requisites to foster logical academic progress from the early to the later years. However, too often students are able to select courses that do not always follow a logical path; for example, they may be able to study basic courses in later years and more advanced courses in early years. Overall, departments need to systematically review the levels of all courses within their programmes to ensure that they are suitably located and provide appropriate academic progression and challenge. It would be beneficial if the curricular content and structure are, at the same time, formally benchmarked against similar programmes at external institutions, as for example at Al Zaytoonah University. With the increased usage of on-line selection of courses by the students, it is particularly important that the systems of pre-requisites and information on alternative pathways are clear and logical.
10. Current students commented that they understood the importance of acquiring a thorough grounding in business and management theory and practices. The graduates stated that the programmes studied were relevant and useful to their subsequent careers. Overall, however, reviewers report some instances of out-dated content. Building on isolated cases of good practice, greater relevance and subsequent opportunities could occur if more interaction was built with the business world thereby enhancing and feeding into the business administration curricula. Examples might include visits to businesses, the regular use of guest speakers, more work placement opportunities, and setting up a business group or committee to draw more effectively upon current business expertise. These features could all assist with the regular reviews of the business curricula that take place in the departments and faculties, ensuring that the curricula are relevant and up-to-date at all times.
11. Given the importance embedded in the intended learning outcomes (ILOs) and in the aspirations of the students, the use of English in the business administration programmes is a major issue addressed in varying degrees by the institutions. The programmes contain a variable element of English, as well as Arabic. In one case, Al Zaytoonah University, the programme is offered in both Arabic and English, with some 15 per cent of students selecting the English stream. Students in the Arabic stream study some courses in English. In contrast, at another university a programme offers only two courses using English. The students overall commented that they highly valued the opportunities provided to them by the university to become proficient in business English and would welcome the chance to develop their English skills to higher levels, regardless of the medium of instruction, in order to have greater career opportunities. In all of the universities, there are significant stocks of books in English. One university is reviewing its curriculum in respect of the English content in order to better prepare its students for their international business careers and achieving the programmes' aims and objectives.
12. Additionally, in the case of the programme subject to the re-visit, significant improvements have been made to the university's curriculum. It is now modern, outward looking, and subject to






continuous monitoring and review. There is greater academic progression reflected in the decision to make research methodology compulsory in the final year from 2005-06.

#### 4.4 Teaching, Learning and Assessment

13. This aspect is sound overall across the four providers, but there are variations. In one university only are the aims met fully and grade 4 is awarded. In two universities, the aims are substantially met, but there is scope for improvement and grade 3 is awarded. In one university, significant improvement could be made and grade 2 is awarded. Generally, the quality of teaching and learning tends to be at least satisfactory across the providers. Weaknesses largely focus on the area of assessment. This aspect is jointly the weakest across the providers.
14. There are effective teaching and learning strategies, and the most effective institutions, outline a range of teaching methods comprising interactive classes, group research activity, directed reading, student papers, student presentations and seminars following on from lectures. Teaching approaches overall are well matched to ensure student achievement of the intended learning outcomes. This proved also true when there was no written formal teaching and learning strategy available and when effective discussion and collaborative approaches by the teaching team supports a collegiate approach.
15. The quality of the teaching observed by the reviewers was generally good. Classes comprised of a range of courses and levels with a variety of methods used and with students engaged in the process. Classes had clear objectives, up-to-date content and matched the intended learning outcomes for the programmes. Even in large lectures, students were encouraged to participate with questions and discussions. One successful session included a student's presentation of a project proposal. The proficiency of the teaching observed in English varied from a sophisticated use of the language to others where it was less successful. Not all staff were adept at using English and Arabic within the same class. Current and past students confirmed that in their view the teaching was generally good.
16. Students are content with the feedback they receive on their work. Oral feedback is provided following the examinations and students are able to receive detailed and individual feedback in 'office hours'. However, in one case students are not always aware of the assessment criteria used or the bases for awarding marks. In this case, staff need to ensure that their students are fully informed.
17. The range of assessment approaches is limited. Both the Ministry of Higher Education and the universities set regulations. Examinations prevail, but these vary to include multiple choice sections, short answer sections and essay questions. In some cases, examinations are supplemented with coursework, including the use of case-studies. At the time of the reviews, however, formal examinations continued to dominate the assessment processes. This makes the optional graduation project even more important as it is an opportunity to assess student abilities more widely. However, in one instance, assessment tasks for the project are often limited to recall or set too broadly and higher skills such as analysis and decision-making are not being fully assessed, even






though these are included in the ILOs. The assessment methods currently used generally need to be developed further and a wider range used to match the stated ILOs in order to appropriately test the students' attainment of knowledge and understanding and skills, and in particular the higher order skills of analysis, evaluation and reasoning.

18. Additionally, in the one provision subject to the re-visit, appropriate development has taken place in business communications including a more effective use of English. Following the University's improvement programme, assessment methods are more varied, with less emphasis on formal examinations and more assessment of project work, student presentations and term papers, as is appropriate for the profile of intended learning outcomes in an undergraduate business programme. Feedback is comprehensive and more standardised and consistent.

#### 4.5 Student Progression and Achievement

19. All four universities are graded 3 for this aspect. In all cases, a substantial contribution is made to the attainment of the stated objectives, but there is scope for improvement in the programmes.
20. Students are recruited through a dual system based on their results in the high school's certificate (Tawjihi) or the GCE A-Level grades from private schools. At public universities, some 55 per cent enter through the national system and 45 per cent are recruited directly or internationally. Often, international student recruitment can be 10 per cent. This international intake adds to the richness of the overall learning experience. In some universities, some 5 per cent of the intake are recruited from community colleges and granted admission exemptions. Mature students are also admitted to the programmes.
21. In the two private universities, students are accepted to the business programme with a score of at least 55 per cent in their high school certificate. In the other two public universities, the minimum score is 65 per cent, which is normally exceeded, particularly by the 'day' students. The 'evening' students generally enrol with lower grades, but still meet the entry requirement of 65 per cent. The 'day' students outnumber the 'evening' students in all cases and this is as high as 99 per cent in one case. They tend to be younger, mainly school leavers, and normally in the 18 to 22 years group. In contrast, the 'evening' students are usually older and cover a broader age range from some 24 to over 40 years. The majority of entrants are male. In the three regional universities, the students mainly live locally, plus a small number who travel from Amman. The international students come from neighbouring Arab states.
22. Overall progression rates are reasonable, bearing in mind that students may re-take examinations. In one example, of the 112 entrants in 2000, 72 have completed successfully, another 14 will complete this year, 17 transferred to other programmes, and only nine have been expelled for academic failure. This suggests a success rate of about 90 per cent, a high overall achievement rate, with only some 10 per cent leaving without a award. In other cases, the achievement rate is between 80 and 90 per cent. In one institution, however, fewer than half the students graduate within four years.




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23. Student progression is monitored by academic staff. One example of good practice is reported at Al al-Bayt University, where students who inadvertently enrol for a course at a too high a level have a two week period in which they can discuss their choice with the course leader and, if necessary, can switch to a more appropriate course. This is an example of good practice. Another example used at the same University is on-line enrolment of courses. This saves staff valuable time. When this system is used without clear and comprehensive information, however, it can lead to inappropriate selection of courses by the students. In such instances, a more comprehensive pre-requisite structure would help ensure that any inappropriate selections are minimised.
24. Generally, employers expressed satisfaction with graduates from the business administration programmes. However, they noted the students' often modest proficiency in using English. This was also evident in students' written work for courses taught in English. Given the aims of the programmes to equip students for business including the international dimension, it is appropriate for students to be able to demonstrate their proficiency in English. The development of English language skills to an appropriate level, as previously noted, needs improvement in many instances. This is also necessary if the students are to make effective use of English language sources for business including the internet and many of the latest and relevant textbooks.
25. The reviewers examined a full range of student work comprising of examination papers, course work, the use of case-studies and, final graduation projects (where undertaken). The work submitted by the students indicated that students acquired knowledge and understanding and relevant business skills and was generally of an appropriate standard. In most work, achievement was commensurate with the ILOs. However, the standard of work produced in three universities in a small number of courses across their programmes was not always appropriate for the level of challenge expected, including occasional third and final year work. In a few cases, there was limited evidence of analytical and evaluative skills being effectively used, seemingly reflecting the limited assessments set in these instances. More careful monitoring of assessments, including examinations, is needed here if all of the programmes are to reach standards comparable with work undertaken in some other countries.
26. In the programme subject to the re-visit, student progression is more effectively monitored. Substantial progress has been made in the level of student achievement, particularly so at level 4, where there is evidence of the application of higher order cognitive skills such as analysis and synthesis. There is still scope for ensuring that the level of student work is always appropriate for a graduate business programme.

#### 4.6 Student Support and Guidance

27. All four Universities have well-developed strategies for student support and guidance which are well matched to the student needs and integrated well between central facilities and departmental provision. The strategies are generally effective in supporting the students and underpinning the stated aims. This is the strongest aspect with all universities awarded grade 4 and meeting their aims. There is a caring learning environment for the business administration students in all cases.




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28. There are clearly operated admissions, registration and induction procedures. In the best instances, detailed information is provided to potential students, usually by the Deanship of Student Affairs. This is complemented on induction by departmental staff who are available to assist students with their choices of the appropriate courses within the programme. Such induction also provides information on social, sporting and cultural events where the new students can meet other teaching staff. In some cases, new students are screened for their abilities in English and IT. It is unfortunate that all new students admitted to business administration programmes do not attend induction and they should be encouraged to do so. Due to the competitive nature of the national admissions system, some students are allocated to a programme other than their first choice. However, as at Mu'tah University, most students met by the reviewers are in fact studying their requested programme. A high proportion, for example 40 per cent (though in one university it is 1 per cent), may be admitted to the 'evening' programme. Many are in employment and are local students. It is often the level of the fees, however, that directs these students to enrol at a particular university.
29. It is the course tutor who provides the student with academic and pastoral support. The reviewers found the system effective with the tutors having 'office hours' and 'open door' policies. Tutors can also be contacted through email and, in some instances, by mobile telephone by students seeking advice. The students met by the reviewers reported effective and friendly learning environments that were highly valued, as at Jerash University, with staff being enthusiastic and fully committed to supporting their students. In this case, there are no female programme staff, but a female adviser is available in Student Affairs. In one case, Mu'tah University, there is a student parliament where more general student matters are discussed. By this or alternative means, reviewers support the introduction of a student-staff committee at departmental or programme levels in all cases to formalise discussions.
30. At university level, there is an impressive range of student services. These include individual student counselling and financial assistance for students needing assistance with the payment of university fees. In one semester, for example, over 900 students received some form of financial assistance at Jerash University. There are careers advisory services and cultural activities provided centrally. Comprehensive student handbooks are provided, as at Al al-Bayt University. Special attention is provided by the universities for non-Jordanian students and those with physical disabilities. Usefully, at Jerash University, a yearbook is produced for students and there is a thriving graduate club.
31. Students progress is tracked by the tutors. Tutors follow up any progression problems in addition to any poor attendance. Generally, students receive regular and appropriate feedback on their annual progress. Students reported to the reviewers that they found this helpful and essential. In one university, students are provided with a study plan for their study programme. In another university, some students felt that there might be improved guidance on the choice of elective courses in relation to their individual career aspirations.
32. Additionally, in respect of the programme re-visited, the support and guidance was originally very good and this remains so. The students receive high quality support from enthusiastic and committed staff.



#### 4.7 Learning Resources

33. Two universities are awarded grade 4 for this aspect and two universities a grade 3. This is the second strongest aspect across the participating universities, with learning resources at least substantially meeting the aims and effectively supporting students in achieving the intended learning outcomes of their courses. Overall, there is a good learning environment for business administration students.
34. There are mechanisms in place for the planned provision of resources. These are generally well matched to the needs of the programmes. Decisions are made initially at university level and then at faculty level and take into account a range of factors such as the number of students and staffing requirements. At Al Zaytoonah University, for example, an allocation for staff research activity is also provided and this example of good practice should be adopted more widely.
35. The libraries, in all four cases, provide good learning environments. These are spacious and airy with generous provisions of study places. Opening hours are at least adequate, with often some 12 hours Sunday to Wednesday, eight hours on Thursday, and Saturday and evening openings upon request. In all cases, the libraries are open at least 50 hours weekly. There are sufficient book and journal stocks, both in Arabic and English, to support the business programmes. There are effective links between the faculties and specialist librarians. In one case, access to an on-line data-base would enhance the provision.
36. Overall computing facilities are at least adequate and in two cases they are extensive. Computing rooms are provided by faculties, though additionally students have access to university-wide and library computing facilities. For example, at Jerash University, computers are available in four rooms and there is also access to some 700 across the University, some 600 of which are connected to the internet. At Al Zaytoonah University, there are some 900 computers on campus accessible for 54 hours weekly. Software is adequate overall, while one of the faculties would benefit from strengthening, particularly in the less quantitative areas. In another faculty, the number of workstations is to be increased from a relatively basic amount and this will expand the use of practical sessions. In general, students tend to use the nearby faculty resources over the university-wide ones. Many students commented that they had their own computers at home to support their learning.
37. In all four institutions, the classrooms are adequate but dated and in need of refurbishment. Too often the seating arrangements are traditionally set in rows and fixed and thus do not allow for more innovative and interactive teaching methods. Some rooms are noisy, suffer from poor acoustics, and students remarked in one case that they became too hot in summer. At Zarqa and Mu'tah Universities, some rooms have modern data-show equipment, enabling the students to develop and demonstrate their presentation skills. Additionally at this institution, students with physical disabilities have dedicated washroom facilities and, if necessary, classes can be timetabled in ground floor rooms for ease of access. Across the providers, the amount and quality of student leisure and social facilities is variable. In the best case, there are good cafeteria and sports facilities available.




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38. Staff numbers, in all but one case, are adequate to deliver the programmes. The quality of staffing, however, is variable across the providers. For example, at Al Zaytoonah University, the academic staff are highly qualified and actively engaged in research and professional development which informs their teaching. Together with part-time staff drawn from government ministries and the private sector, they provide a vibrant teaching environment. At Mu'tah University, there is a policy of developing newer staff with secondments overseas to enhance their qualifications and academic experience. However, in another university, there is only limited contact with overseas providers and thereby a limited opportunity for using such external reference points to benchmark their own provision. Furthermore, staff at this university are expected to teach across many courses, thereby restricting opportunity for specialization and seriously limiting their development of in-depth and research-led teaching. In all cases, staff have access to computers in their offices. Overall, there is appropriate technical support at faculty level with one faculty having five technicians providing a high level of support in the computing laboratories.
39. Additionally, in the one provision subject to the re-visit, learning resources were originally reported to be a strength in 2003 and this continues to be so. Academic staff are well-qualified, IT facilities are comprehensive and the intranet and internet are upgraded. The library is well-stocked and has an impressive range of facilities, including specialist resources for sight-impaired students.

#### 4.8 Quality Management and Enhancement

40. This is jointly the weakest aspect across the four providers subject to a full review. One university is awarded grade 4 and two are awarded grade 3; however, one university is awarded grade 2, where an acceptable contribution to the attainment of the stated objectives is made, but there is room for significant improvement.
41. In the best example, Mu'tah University, there is a strong belief in the ethos of quality management and enhancement that is well established in effective quality assurance procedures. The faculty review also moderates and formally approves grades and investigations are instigated if the mark distribution fails to meet faculty norms. Additionally, a randomly selected sample of courses is also reviewed in some depth to assure quality and standards at the most basic level of student experience. As noted previously at Al Zaytoonah University, the programme is formally benchmarked against other comparable programmes, using external reference points, facilitated by staff with former overseas experience. In contrast, in the provision where there is scope for significant improvement, there is a lack of transparency in the quality procedures, in particular in the lines of responsibility, in the lack of key dates for evaluation, and in the vagueness of quality and standards targets.
42. Student consultation and feedback is a feature in all four universities. Departments and faculties are open and responsive to student concerns and opinions through both formal and informal means. In all cases, there is good rapport with academic staff and tutors whereby students can discuss issues on an informal basis and this is successful. In the better instances, students views are canvassed formally through end-of-semester questionnaires and the students confirmed that due attention is paid to their comments. Two universities are about to introduce a formal





system of staff-student liaison committees and this development is worthy of consideration by all institutions.

43. Quality and curricular currency are enhanced in all cases by contact with employers. This is undertaken, however, on an informal basis and would be improved by establishing systematic and continuing engagements with representatives of the employers and other relevant community groups and organisations. This is also true for the links with alumni, which also tend to be on an informal basis. Currently, there is no formal system to externally verify the levels of students' achievements, such as using external tests, external examiners or 'critical friends'. Mu'tah University is giving this consideration. This would be of benefit to all providers and their stakeholders in demonstrating the academic standards and raising the levels of confidence in the graduates.
44. All of the providers collect student data . In all cases, however, this could become a more systematic process related to a range of performance indicators including enrolment numbers, student progression, retention and achievement rates by cohort, and first destination statistics. Without information like this, it is difficult for the business administration providers to assure themselves on quality and standards and to identify and address basic issues.
45. At one university, there is a useful programme of staff seminars to share expertise and disseminate good practice. These seminars tend to be subject-based and reflect staff research interests. However, topics have also included teaching and learning methods. This assists directly with enhancing quality and standards and should be a feature of all faculties in disseminating good practice. In another case, new staff benefit from induction, training in teaching, and mentoring. Again, this helps to enhance quality and standards and might, with benefit, be replicated elsewhere.
46. The SEDs provided very useful bases for the four reviews. They contained informative material on which to base the site visits and often contained helpful evaluations on the provision. It is clear that much will have been learned by the staff writing these documents about quality methods and standards, and also for those who produced the programme specifications.
47. Additionally, in the programme subject to the re-visit, there is now a well-established, clearly delineated process for the monitoring and evaluation of the programme at departmental, faculty and university levels. There is also an internal University Accreditation Unit charged with preparing for review by the Ministry of Higher Education. External input is sought from past students, employers and private and state organisations and there is benchmarking against other providers' programmes. Although not required by the HFE, the institution supported its review of the action plan by preparing a new SED and the agenda for further improvement. Overall, considerable progress has been made since the original visit in 2003, though there is still need for more business-related experience for staff, further refinement of student progression data, and a greater formalisation of post-assessment moderation of student work.



#### 4.9 Conclusions and Recommendations for Improvements

48. The quality of the business administration programmes in the four universities subject to a full review is at least adequate overall. The strength of the aspects ranged from Student Support and Guidance with a mode and grade average of 4, the top grade, to Teaching, Learning and Assessment, Student Progression and Achievement and Quality Management and Enhancement, the three weakest aspects, each with a grade average of 3. In the individual universities, the top university received an overall grade average of 3.66, a notable achievement, and the weakest university received 2.83, with two aspects awarded grade 2, where significant improvement could be made.
49. The positive features of the business administration provision in the four universities include:
- a. The curricula, overall, provide a good grounding in business administration, relevant and useful to students' subsequent careers. A range of skills is embedded, providing students with relevant competencies. The graduate projects undertaken, form a valuable part of the programmes.
  - b. There are effective teaching and learning strategies operating, though these are not always written down. Teaching and learning methods include interactive classes, group research activity, student presentations, and seminars following on from lectures.
  - c. Teaching approaches overall are well matched for the students achievement of the intended learning outcomes.
  - d. Oral feedback is provided to the students following the examinations and they are able to receive detailed and individual feedback in 'office hours'.
  - e. Student progression and achievement rates are at least reasonable and sometimes good.
  - f. Student work examined by the reviewers indicated that the students acquired knowledge and understanding and relevant business skills and was of an appropriate standard in general. Work in the graduate projects was often impressive and of publishable quality.
  - g. Academic and pastoral support is effective overall and much appreciated by the students. There is a caring learning environment in all cases. Student progress is tracked by tutors and the students receive feedback on their annual progress.
  - h. There is an impressive range of student services at university level that include counselling, financial assistance, careers advice and help for students with physical disabilities.
  - i. Learning resources are generally good. There are mechanisms for the planned provision of resources. The libraries provide good learning environments, are open at least 50 hours per week, and contain sufficient book and journal stocks, including e-journals, to support the business programmes. Two universities are using modern data-show equipment.
  - j. Quality management and enhancement is effective in the best instances. Student consultation and feedback on quality issues is an important feature in all cases, with departments and faculties responsive to student concerns and opinions.
  - k. At one university, the programme is formally benchmarked against other comparable business administration programmes overseas. At another university, benchmarking of the programme is undertaken, but informally.






50. Recommendations for the business administration provision in the four universities include:

- a. Careful monitoring of course selection is needed overall in order for students to follow a logical academic programme with appropriate challenges at each level. Pre-requisites are indicated in some cases, but students occasionally select courses from an inappropriate level. The on-line selection of courses, although saving staff valuable time, may worsen the situation without clear information for the students and also needs careful monitoring.
- b. Most curricula would benefit from programmes having greater and more formal contact with the business world. A formal committee could be set up, meeting regularly. This would help ensure that curricula are relevant and up-to-date. It might also enable the students to have more work placements.
- c. The proficiency and use of English should be improved to enable students to be effective when progressing to employment in the business world, reflecting the aims and objectives set. The employers commented on this and the students also indicated that they would like to be more proficient.
- d. There is a limited range of assessment methods used overall, largely reflecting the current dependence on formal examinations. A wider range of assessment methods would be appropriate to fully test the students' abilities in their business administration programmes.
- e. There are occasional cases where student work is of a lower standard than expected. More careful monitoring of assessments to cover all courses at all four levels is needed to ensure an appropriate standard of work overall.
- f. Course tutors may wish to identify good practice in the level of guidance offered to their students for the selection of courses and the implications for their career choices with a view to establishing an effective link between the design of their study programmes and their preferred careers.
- g. Although the number of teaching rooms is adequate, in all cases these are in need of refurbishment. In one case, a new building will be provided for housing the business programme and this is welcomed. Attention needs to be given to seating as it is currently rigid and not conducive to exploring a range of teaching methods.
- h. Benchmarking the programme against external reference points should be more widely undertaken and become a regular quality improvement and enhancement activity.
- i. The collection and collation of data and information on student progression and achievement needs to be more systematically and widely undertaken to support quality assurance processes and decision-making. There is scope for the development of a national structure of performance indicators that carry the confidence and support of all institutions and their stakeholders. Such a development would support institutions in their individual efforts to improve their management of information on performance and promote excellence.
- j. One university is considering using external examiners or 'critical friends' as part of their academic infrastructure. This, if implemented, would also help ensure that appropriate quality and standards are in place. Additionally, the development of appropriate uses of external reference points to confirm and verify achievement might, with benefit, be considered by all providers of business programmes.
- k. Staff development activities need to cover teaching and learning approaches to help ensure appropriate standards are in place for all their teaching experiences, in addition to other activities such as discussing staff research papers.



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1. Quality assurance and enhancement procedures should be transparent and have the confidence of staff and stakeholders. All participating universities should produce and maintain programme specifications as an integral part of these procedures.
51. In the case of the programme subject to the re-visit, significant improvements have been made since the original visit in 2003. A grade 4 out of a possible 4 points is awarded for the improvements made by the university. The reviewers are satisfied with the overall quality and standards now being achieved. Usefully, the programme is benchmarked against that of other external providers. The Improvement Plan has been successfully implemented overall by staff committed to improving the programme and the learning experience of their students. There are still areas for continuing improvement and these include the need to ensure that all student work is of an appropriate standard, staff receive more business-related experience, there is a further refinement of student progression data, there is greater formalisation of post-assessment moderation of student work, and the development of an inter-library loans system is undertaken.

## Annexes

### Annex A: Universities participating in this review

- Al Al-Bayt University
- Al-Zaytoonah University
- Jerash University
- Mu'tah University
- Zarqa University (one day re-visit)

### Annex B: Reviewers taking part in the review

- Jeff Butel (Review Coordinator)
- Linda Carr
- Peter Clarke (Review Coordinator)
- Tony Pugh
- Carol Vielba
- Nick Wiseman







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# Quality Assessment of Law Programmes in Eight (8) Jordanian Universities

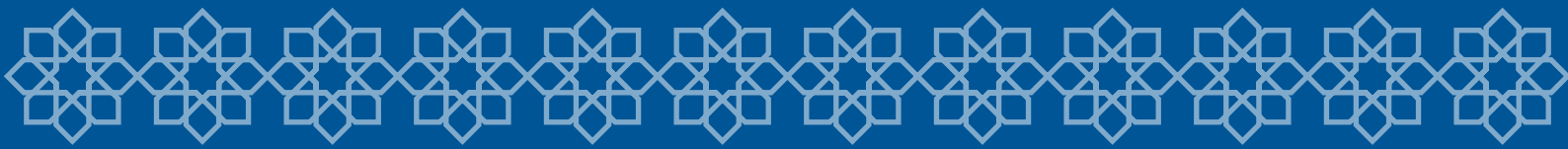
## **Subject Overview Report**

**Prepared by: Helen Marshall**  
**(HFE Consultant to the Law Review Project)**

**Revised by: Arthur Brown**  
**(The HFE Advisor on behalf of the QAA)**

March 2006





## 1. Quality Assessment of Law Programmes

The law programmes at eight Jordanian universities were reviewed under the auspices of Al Hussein Fund for Excellence (HFE), together with support from the Quality Assurance Agency for Higher Education (QAA) in the UK. The HFE was established in 1999 with the quest to promote excellence encourage innovation and endorse sustainable development in the Hashemite Kingdom of Jordan. The review site-visits took place in March 2006. They were based on the HFE's subject review process, published January 2005 in The Subject Review Handbook. The method has been adapted from the QAA's current academic review and developmental engagement processes to meet Jordanian higher education requirements.

The HFE provided a training workshop to assist participating universities in the preparation of the Self-Evaluation Reports (SER) and Programme Specifications. All the universities provided an SER as a basis for the review visit to each university. Seven universities provided effective programme specifications, and seven provided brief additional information to update the reviewers on the developments that had occurred in the programme since the production of the SER in August 2005.

Review teams, introduced to the HFE by the QAA, consisted of two experienced review chairs, who were also subject specialists, and four subject specialist reviewers. They operated in two teams of three, with each team visiting four universities. Following the site visits each team prepared the review report for the universities they had visited.

The eight review reports on the law programmes and the review team meetings undertaken in Jordan and London form the basis for this overview report which was prepared by the Project Consultant.

## 2. The main features of the review method

### 2.1 Review against aims and intended learning outcomes

The Accreditation Council at the Ministry of Higher Education and Scientific Research requires a degree of uniformity among the private universities participating in the reviews of law programmes. However, within the arrangements for accreditation, each has a degree of autonomy to determine its specific aims and objectives at subject level. The eight universities vary in size, overall subject provision, history and mission. Five of the participating universities under review are private and three are formal (public).

The subject review is carried out in relation to the subject aims and objectives, including intended learning outcomes (ILOs), set by each university. Subject review measures the extent to which each subject provider is successful in achieving its aims and ILOs.



## 2.2 Review of student learning experience and student achievement

Subject review also examines the influences that shape the student learning experiences and achievements. It covers the teaching and learning activities, including some direct observation of teaching methods, assessment methods, the quality and standard of student work, examining actual student work and achievement, the curriculum, staff and staff development, student support and guidance, the quality and use of resources (classroom and other accommodation, library, information technology (IT), and other equipment), and the quality management processes. This range of activities is captured within a core of six aspects of provision, each graded on the scale of 1 to 4, with 4 as the top grade.

The six aspects are:

1. Curriculum Design, Content and Organisation (CDCO)
2. Teaching, Learning and Assessment (TLA)
3. Student Progression and Achievement (SPA)
4. Student Support and Guidance (SSG)
5. Learning Resources (LR)
6. The Effectiveness of Quality management and Enhancement (EQME)

## 2.3 Grading the six aspects of provision (the graded profile)

The graded profile shows:

- i. The extent to which the university has established and implemented its aims and ILOs;
- ii. The extent to which the student's learning experience and the academic standards achieved demonstrate that the aims set by the university for the law programme are being met;
- iii. The extent to which each aspect makes a contribution to the achievement of the declared ILOs.

All six aspects in the profile have equal weighting. The creation of the graded profile is achieved by applying a grade to each aspect of provision. There are four numerical grades – 1, 2, 3 and 4. The assignment of the grade is a matter for the professional judgement of the review team, drawing on the evidence provided by the university.

The review teams apply the following criteria in awarding a grade:

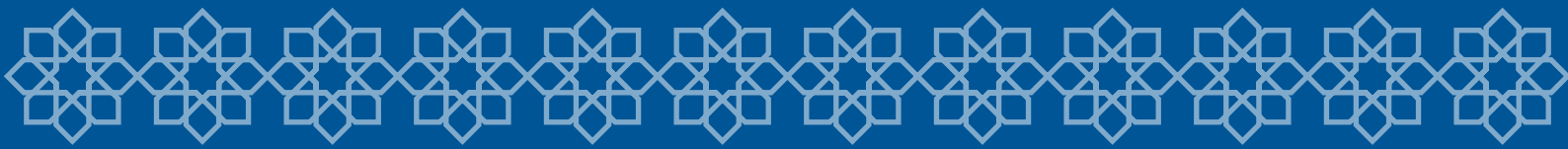
**Grade 1 :** The ILOs set by the subject provider are not met. This aspect does not support the stated aims and/or ILOs; there are major shortcomings that must be rectified.

**Grade 2:** This aspect makes an acceptable contribution to the attainment of the stated ILOs, but significant improvement could be made. The aims set by the subject provider are broadly met.

**Grade 3:** This aspect makes a substantial contribution to the attainment of the stated ILOs; however, there is scope for improvement. The aims set by the subject provider are substantially met.

**Grade 4:** This aspect makes full contribution to the attainment of the stated ILOs. The aims set by the subject provider are met.





If all grades in the profile are 2 or better, then the quality and standard of the law programme is 'approved'. A profile with three or more grade two's will result to an invitation of the institutions by the HFE, to develop an improvement plan and to demonstrate its impact in due course.

A profile that contains at least four grade 4s and no grade lower than 3 will be eligible for consideration by HFE for its Award of Academic Excellence. Any decision on this award will be based on the verified subject review reports and graded profile, and will be announced shortly after the completion of the subject review cycle.

## 2.4 Review by peers

All of the six reviewers taking part are academic and professional peers in law. Two of the six are team chairs, and the others are subject specialists. All are QAA-trained and are widely experienced in the review processes in the UK and overseas. In addition, the HFE provides briefings to the reviewers on the project, the SERs, the programme specifications, additional training (if necessary) and the logistical arrangements. On the site-visits, the review teams are supported by professional interpreters.

## 2.5 Review comprising internal and external processes

The review process consists of several stages:

- The preparation of the SER by the university, based on the university's own aims, objectives and intended (ILOs) for the law programme, and as set out in the structure provided by the six aspects of provision. The university is invited to nominate a senior member of the academic staff as an institutional nominee (facilitator) and the Faculty is invited to nominate a programme coordinator.
- The preparation of programme specifications for law, which describe the ILOs in terms of knowledge and understanding, skills and other attributes and the means by which these outcomes are achieved by the students.
- Two-and-a-half day review site-visit carried out by a team of three reviewers, including a review chair, to eight universities.
- Daily review meetings by each team, in which all team members and the facilitator participate.
- Final judgement meetings held by each team to decide on the grades to be awarded for each of the six aspects. If each aspect is graded 2 or better, the quality and standard of the law programme is 'approved'.
- Production of the review report, together with a short summary report, that are then sent to the HFE.
- Production of the overview report based on the eight review reports, which is then sent to the HFE.
- Verification meeting comprising representatives of the HFE, the QAA, and the review chairs to agree on the final reports and the graded profiles and to make a recommendation to the HFE on the award of a money prize and trophy to the university that excelled in the quality of its programme, if applicable.



### 3. Summary of the Law Subject Overview Report

The law programmes at eight Jordanian universities were reviewed under the auspices of Al Hussein Fund for Excellence (HFE). Overall, the quality and academic standards of the law programmes reviewed in the eight universities that participated in the review cycle (Annex A) in Jordan are approved. Six of these universities are awarded 21 points or more across the six aspects and are judged to be of a comparable international standard. Graduates from these programmes successfully obtain places on master's and PhD programmes in Jordanian, European and United States universities. There is variation in quality and standards across the providers; this ranges from a provision that receives 24 points to a provision awarded 17 points.

The strongest aspects are Student Progression and Achievement (SPA) and Student Support and Guidance (SSG) followed by Learning Resources (LR). The aspects Curriculum, Design, Content and Organisation (CDCO) and Effectiveness of Quality Management and Enhancement (EQME) are third strongest. The weakest aspect is Teaching Learning and Assessment (TLA).

#### Curriculum Design, Content and Organisation (CDCO)

The curricula, overall, provide a good grounding in law, relevant and useful to students' subsequent careers. Most curricula met aims to provide students with appropriate knowledge combined with relevant practical experience. There is a common structure pattern for the programme at undergraduate level, with programme design being coherent and appropriate for the aims.

Currency in the curriculum is seen as important, and a variety of methods exist in order to update the curriculum and introduce new courses.

#### Teaching, Learning and Assessment (TLA)

There are a range of approaches to the articulation and implementation of TLA strategies. In the best examples, there is evidence of clearly articulated strategies which are fully documented and align well to the aims and ILO's. In some universities, there is still a need to identify clear ILO's and map these against modules in the programme to decide where these outcomes, particularly those involving skills, would be taught, practised and assessed. It is also evident that strategies are well understood by staff and students when they are clearly articulated and documented.

Overall, the quality of the teaching observed by the reviewers was good. Classes comprised of a range of courses and levels that are taught using a variety of teaching methods with students engaging in the process. Some evidence was seen of newly introduced teaching methods, notably the Mock Court sessions, which are important in the development of a range of professional and transferable skills. There is a need in some universities to introduce teaching styles that support the development of appropriate thinking, oral and problem solving skills specified in the ILO's.

The range of assessment approaches is limited. Regulatory policy at national level requires that there are two written examinations (first and second) worth a minimum of 40% each with a course work





of 10% and a final written examination which constitutes 50% of the total mark of 100% for each course. One university has recently used mid-term, coursework and final exam of 100%. However, the continued dominance of examinations in the assessment regime limits the development and assessment of a range of higher order cognitive and professional skills within the undergraduate law programmes.

Within the examinations under review, there was too little evidence of questions requiring students to produce a depth of academic analysis and critique. Having recently developed ILOs, the universities should now consider how to develop an appropriate range of assessment methods that allow the students to demonstrate their attainment. The higher order of skills would be better developed and tested by the use of extended pieces of coursework or more complex examination questions.

Students are recruited based on their results in the high school certificate (Tawjihi). In public universities, a minimum of 73% in the Tawjihi is required, with some universities requiring as high as 85%, and students who enter often exceed these requirements. A parallel stream is offered in the evening and an overall mark of 65% is required to enter. In private universities, the same process applies with students requiring a minimum of 55% to gain entry. Additional arrangements are in place for those who, having obtained 50 per cent in the Tawjihi, complete a “bridging programme” in a Community College.

### **Student Progression and Achievement (SPA)**

Student progression and achievement rates are at least reasonable and sometimes good. Generally, employers expressed satisfaction with graduates from the law programmes. The ones achieving high levels of outcomes in their degree were sought after for posts in the courts. However, they noted that some students who graduated lacked higher order problem solving and analytical skills.

### **Student Support and Guidance (SSG)**

It is the personal tutor who provides the student with academic and pastoral support. Meetings are arranged each semester, and in addition students make contact during “office hour” sessions, which are posted within the faculty. Academic and pastoral support is effective overall and much appreciated by the students.

At university level, there is an impressive range of student services. These include individual student counselling and financial assistance for students needing assistance with their payment of fees. There are career advisory services and cultural activities provided centrally. Effective liaison between faculty and central staff ensure that students can access help when required. Career advice is effectively provided by faculty and university staff in conjunction with the King Abdullah II Fund for Development.

There are mechanisms in place for the planned provision of resources. These are generally well matched to the needs of the programmes.



### Learning Resources (LR)

The libraries, in all eight cases, provide good learning environments. These are spacious and airy, with generous provisions of study places. There are sufficient book and journal stocks, both in Arabic and English, to support the law programmes.

In all eight institutions, the classrooms are adequate, and in a number of universities new faculty buildings had been provided or were in the course of being built. In addition, a number of universities have provided Mock Court rooms, which have greatly enhanced the range of teaching and learning activities and provided an excellent environment for the simulation and practice of oral and legal skills.

### The Effectiveness of Quality management and Enhancement (EQME)

There is evidence of effective and robust processes in place in a number of universities for reviewing and developing the curriculum. Nevertheless, there is need for a more systematic and holistic approach to the regular review of not only curriculum content but also its delivery and assessment in most of the participating universities to provide a more effective approach to quality assurance and enhancement.

Student consultation and feedback is a feature in all eight universities. Departments and faculties are open and responsive to students concerns and opinions through both formal and informal means.

All of the providers collect student data. In all cases, however, this information gathering should become a more systematic process related to a range of performance indicators including enrolment numbers, student progression, retention and achievement rates by cohort, and first destination statistics. Without information like this, it is difficult for the law providers to assure themselves on quality and standards and to identify and address basic issues.


External benchmarking of the programme has become a feature at some Universities. All participating universities should produce and maintain programme specifications as an integral part of these procedures, and the use of appropriate external reference points to confirm and verify achievement might, with benefit, be considered by a number of providers of law programmes.

## 4. Analysis and Evaluation of the Quality of Law Programmes

### 4.1 Introduction

1. This overview report has been derived from the subject review reports for law assessed during the eight review visits carried out in March 2006 (Annex A). Its main purposes are to highlight positive features, to emphasise potential areas for improvement, and to assist in the dissemination of best practice.
2. The review of the quality and standards of law programmes was carried out by teams of subject specialist reviewers, each led by a review chair (Annex B). In all cases, each team reached consensual judgements in light of each university's aims and the intended learning outcomes (ILOs) set for students.



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3. Law programmes are of direct economic and social importance for Jordanian society.

Jordan's universities, therefore, need to offer a legal education which compares favourably with best international practice and provides graduates who can compete successfully in the legal and business world. Such high-quality programmes may also attract more good students from within Jordan and from foreign countries, again assisting the Jordanian economy and society.


#### 4.2 Aims and Intended Learning Outcomes

4. In order to form judgements on the quality and standards of the programmes, the reviewers require the aims and intended learning outcomes (ILO's) to be clear. All eight universities included an appropriate range of relevant aims. These ranged from general aims, for example, "to offer students a basic understanding of law" to more specific aims, for example, "develop the abilities of students in undertaking legal theoretical and applied research, and to utilise the varied sources of knowledge, and to marshal and benefit from data and information". The better SER's contained general aims which led to more specific ones. This was the most effective mix.
5. Seven of the eight universities are able to demonstrate an appropriate range of ILO's that relate to knowledge and understanding, professional skills, and cognitive skills. In one university, further work is needed to develop the ILO's beyond the existing level to focus on the student profile and the particular knowledge and skills to be developed. In two universities, the inclusion of the ILO's in a Programme Specification would enhance staff and students' understanding of how these combine at programme level to support the development of appropriate graduate knowledge and skills.
6. The reviewers are encouraged by the Programme Specifications produced by most of the Universities. These represent a significant enhancement of the quality assurance of the programmes, and provide opportunities for staff to map the ILO's identified against the development of knowledge and skills. This will enable staff and students to identify where learning outcomes are taught, practised and assessed.

#### 4.3 Curriculum Design, Content and Organisation (CDCO)

7. This aspect makes a full contribution to the attainment of the stated ILOs in four universities where grade 4 is awarded. Grade 3 is awarded in three universities and there is scope for improvement. However, one university is awarded grade 2 where an acceptable contribution to the attainment of the stated ILOs is made, but there is room for significant improvement. Overall this is the third strongest aspect jointly with the aspect Effectiveness of Quality Management and Enhancement.
8. Undergraduate law programmes are offered in both public and private universities in Jordan. In private universities, the curriculum is accredited by the Accreditation Council/ Ministry of Higher Education and Scientific Research, and approved by the Jordanian Bar Association. The Law Programme is normally delivered on an average of eight semesters, and consists of four academic levels (four years). An optional summer semester each year may reduce this to three years. The time





for completion should not exceed seven years for those students who were recruited based on their results in the high school certificate, and ten years for those students who entered the parallel stream offered in the evening. Public universities are not subject to the accreditation requirements, but curricula are broadly similar to those contained in the accreditation requirements. This reflects a regional consensus and a process of parallel development and comparison between the university Law Faculties.

9. The undergraduate award in the universities reviewed ranges from 129-132 credit hours, which are distributed among obligatory and elective module requirements at University, Faculty and Departmental levels. A current review of the curriculum by the Deans of University Law schools is considering the optimum credit hours for a law degree and is likely to bring forward recommendations for a common tariff toward the upper end of that currently in place. Reviewers are supportive of this initiative.
10. The curricula, overall, provide a good grounding in law, relevant and useful to students' subsequent careers. Most curricula met aims to provide students with appropriate knowledge combined with relevant practical experience. There is a common structure pattern for the programme at undergraduate level, with programme design that is coherent and appropriate for the aims. First-year modules introduce students to the general principles of law. These include different branches of law such as basic principles of commercial, civil, administrative, criminal, constitutional, and international public laws. In the second and third years, the core modules allow students to continue to develop the necessary breadth and depth fundamental to undergraduate legal training. During the fourth year, a more procedural focus on civil, commercial, criminal and administrative laws is emphasised. These aim to prepare students for practical elements of the law. The final year graduation research project requires students to conduct legal research under supervision. This design, together with appropriate use of prerequisites ensures appropriate progression throughout the programme.
11. Currency in the curriculum is seen as important, and a variety of methods exist in order to update the curriculum and introduce new courses. These include a collective initiative by the Deans of University Law Schools who have held meetings to discuss the curriculum and to arrive at a broad consensus on its length, content and the need to ensure appropriate depth of coverage. Proposals coming from this group and the Ministry of Justice are currently under consideration by the Jordanian Ministry of Higher Education. In addition, new and updated courses arise from consultation with external stakeholders and through the initiatives of individual staff. Examples of these include the introduction of new Intellectual Property and International Trade courses following conferences on Intellectual Property and Securities Law, involving experts from universities throughout the Arab world as well as the Securities Commission and the Amman Stock Exchange, and taking account of the recommendations of the World Intellectual Property Organisation (WIPO). In addition, consultation with external stakeholders such as the Jordanian Bar Association and the Ministry of Justice is resulting in a new Judicial Applications course. Such changes ensure currency in the curriculum and allow students to study specialist courses at the later stages of their programme.






#### 4.4 Teaching, Learning and Assessment (TLA)

12. This is the weakest aspect across the universities. Two universities are awarded a grade of 4, and four are awarded grade 3. Two universities are awarded grade 2, where an acceptable contribution to the attainment of the stated learning outcomes is made, but there is room for significant improvement.
13. There are a range of approaches to the articulation and implementation of TLA strategies. In the best examples, there are clearly articulated strategies which are fully documented and align well to the aims and ILO's. Other approaches include an articulation of existing practice and compliance with university policy. In some universities, there is still a need to identify clear ILO's and map these against modules in the programme to decide where these outcomes, particularly those involving skills, would be taught, practised and assessed. It is noticeable that strategies are well understood by staff and students when they are well articulated and documented.
14. The quality of the teaching observed by the reviewers was good overall. Classes comprised a range of courses and levels with a variety of methods used and with students engaged in the process. Students value the fact that many of the tutors are practising lawyers, and this contributes to the practical dimension of the classes. While lectures are the predominant form of delivery, staff are encouraged to use interactive methods, and these were observed to be working well with students who fully engage in the session. Some evidence was seen of newly introduced teaching methods, notably the Mock Court sessions, which are important in the development of a range of professional and transferable skills. There is a need in some universities to introduce teaching and learning styles that aim at developing appropriate thinking and oral and problem solving skills specified in the ILO's.
15. Students are content with the feedback they receive on their work. Oral feedback is provided following the examinations, and students are able to receive detailed and individual feedback in 'office hours'. In some universities, staff provide model answers for students as part of the feedback process. However, in some cases, students are not always aware of the assessment criteria used or the basis for awarding marks. In these cases, staff need to ensure that their students are fully informed.
16. The range of assessment approaches is limited. Regulatory policy at national level requires that students are assessed on the basis of at least two written examinations worth at least 40% each, with a coursework of 10% and a final written examination which constitutes 50% of the total mark for each course. Some institutions have sought to offer as much variation in the types of assessment required within these limitations. This has worked well where universities have allocated a maximum of 20% of marks to in-course participation and other forms of assessment designed to develop cognitive, professional and transferable skills. However, the continued dominance of formal examinations in the assessment regime limits the development and assessment of a range of higher order cognitive and professional skills within the undergraduate law programmes.






Within the examinations under review, there was too little evidence of questions requiring students to produce a depth of academic analysis and critique. These skills would be better developed and tested by the use of extended pieces of coursework or more complex examination questions.

17. A variety of processes are in place to ensure the robustness and fairness of the assessment process. These include an appeals process that can be invoked by any student who feels their work has not been fairly marked, and a review of marks by course to ensure a standard distribution of marks. While these processes contribute to fairness of assessment outcomes, there are still examples of different staff teaching the same course but setting different assessments or examinations. Universities are recommended to consider making a single assessment regime a requirement for courses taught by more than one member of staff, as this reduces the possibility of variation in practice and unfairness to students.

#### 4.5 Student Progression and Achievement (SPA)

18. This is the strongest aspect, jointly with SSG. Seven universities are awarded a grade 4 for this aspect, which makes a full contribution to the attainment of the stated ILOs. One university is awarded grade 3, making a substantial contribution to the attainment of the stated ILOs, but there is scope for improvement.
19. Students are recruited based on their results in the high school certificate (Tawjihi). In public universities, a minimum of 73% in the Tawjihi is required, with some universities requiring as high as 85%, and students who enter often exceed these requirements. A parallel stream is offered in the evening and an overall mark of 65% is required to enter. In private universities, the same process applies, with students requiring a minimum of 55% to gain entry. Additional arrangements are in place for those who, having obtained 50 per cent in the Tawjihi, complete a “bridging programme” in a Community College. If they achieve a high average in their diploma, they may be admitted to level 3 of the programme. International students make up a significant percentage of the undergraduate population, and these students add to the richness of the overall experience. Jordanian students mainly live locally, in addition to a small number who travel from Amman to universities further afield.
20. SPA rates are at least reasonable and sometimes good. The percentage of students who fail to progress for academic reasons, ranges between 5%-10% per annum. In addition, a number of students leave because they choose to transfer to other courses within their original university or elsewhere or withdraw from university study altogether. In one example, less than 10% of students fail or withdraw per annum, and on average 80% of each entry cohort achieves a law degree. In another example, 126 students enrolled in 2000, of whom only 44 had graduated after four years, with a further 21 students continuing their studies at various levels.
21. Student progression is monitored by academic staff. However, in some universities more systematic collation of data would assist universities in analysing student progression and performance and course management. For example, the ability to compare the relative performance of students on day and evening courses and those who enter through bridging programmes would provide useful






insight to the needs of these different groups and provides some indicator of the “value added” to these students from the point of admission to completion of the programme.

22. The majority of students graduate at levels that are recognised as “good” or “fair”. General trends show that approximately 5% of students graduate with “excellent” and 10% with “very good” profiles. Students who graduate with “excellent” profiles are sought after by employers who recognise the very high order skills and abilities acquired by these students.
23. Generally, employers expressed satisfaction with graduates from the law programmes. The ones achieving high levels of outcomes in their degree were sought after for posts in the courts. However, they noted that some students who graduated lacked higher order problem solving and analytical skills.
24. The reviewers examined a range of student work, comprising examination papers, course work, the use of case-studies and, where undertaken, final graduation projects. The work indicated that the students acquired good levels of technical competence, and there was evidence of the application of technical skills to specific problems and case studies in later stages of the courses. However, there was too little evidence of the acquisition of higher order problem solving and analytical skills in the later stages of the course.

#### 4.6 Student Support and Guidance (SSG)

25. All eight Universities have well-developed strategies for SSG, which are matched to the student needs and integrating well between central facilities and departmental provision. The strategies are generally effective in supporting the students and underpinning the achievement of the stated ILOs. This, jointly with SPA, is the strongest aspect, with seven universities awarded grade 4 and one university a grade 3. There is a caring learning environment for the law students in all cases.
26. In public universities, the admission to the programme is through the Jordanian Ministry of Higher Education and Scientific Research, whereby students indicate their preferred university and programme, and places are allocated on a competitive basis. There are clearly operated admissions, registration and induction procedures for students in public universities studying in the parallel stream and for those in private universities. In the best instances, detailed information is provided to potential students well in advance of their entry. Orientation sessions are held at university and faculty levels for new and current students. These provide an effective introduction to university facilities and the requirements of the course and are supplemented by helpful documentation.
27. It is the personal tutor who provides the student with academic and pastoral support. Meetings are arranged each semester, and in addition students make contact during “office hour” sessions which are posted within the faculty. Tutorials are used to provide advice on both academic and personal matters, and students will be referred for specialist help when necessary. Tutors liaise effectively to ensure that any concerns relating to any student can be communicated to those most directly concerned. Academic and pastoral support is effective overall and much appreciated by the






students. There is a caring learning environment in all cases. Student progress is tracked by tutors using effective electronic systems, and the students receive feedback on their annual progress. The students met by the reviewers reported effective and friendly learning environments that are highly valued.

28. There is an impressive range of student services at university level. These include individual student counselling and financial assistance for students needing assistance with payment of fees. Career advisory services and cultural activities are provided centrally. Effective liaison between faculty and central staff ensures that students can access help when required. Career advice is effectively provided by faculty and university staff in conjunction with the King Abdullah II Fund for Development.
29. Student progress is tracked by the tutors, and in some instances, electronic files which record relevant information relating to student performance and progress are available to ensure that personal tutors can monitor and advise students.

#### 4.7 Learning Resources (LR)

30. This is the second strongest aspect. Six universities are awarded a grade 4 for this aspect, which makes a full contribution to the attainment of the stated ILOs. Two universities are awarded grade 3, making a substantial contribution to the attainment of the stated learning outcomes, but there is scope for improvement.
31. There are mechanisms in place for the planned provision of resources. These are generally well matched to the needs of the programmes. Decisions are made initially at university level and then at faculty level and take into account a range of factors such as student numbers and staffing requirements.
32. The libraries, in all eight cases, provide good learning environments. These are spacious and airy with generous provisions of study places. Opening hours are at least adequate, with often some 12 hours daily from Sunday to Wednesday, eight hours on Thursday, and Saturday and evening openings on request. In all cases, the libraries are open at least 50 hours weekly. There are sufficient book and journal stocks, both in Arabic and English, to support the law programmes. There are effective links between the faculties and specialist librarians. Access to on-line databases for both Arab law and international law enhance student's access to current material. Some universities have provided, in addition to the main library, a local faculty-based facility housing the most used texts for students to use on a reference basis only.
33. Overall, computing facilities are at least adequate and are available in the main university centre as well as variously within the libraries, and locally in the faculty buildings. PC's are modern and run up-to-date software, and students do not report any problems with access.
34. In all eight universities, the classrooms are adequate, and in a number of universities new faculty buildings had been provided or were in the course of being built. Students have access to general






teaching space, which is adequately furnished, although many staff reported difficulty in accessing technical equipment such as data projectors to support proposed teaching activity. Some space was shabby and in need of general refurbishment. In addition, a number of universities have provided Mock Court rooms, which have greatly enhanced the range of teaching and learning activities and provided an excellent environment for the simulation and practice of oral and legal skills.

35. Staff numbers in all cases are adequate to deliver the programmes. There is a mix of full- and part-time staff. A number of staff are also in legal practice, which enables them to bring first-hand knowledge of professional issues into their work with students. The quality of staffing is good. All staff are qualified to deliver the undergraduate curricula under review. Some staff profiles demonstrate extensive research activity of regional and international significance. Opportunities for staff development are available and regarded as important by all universities. However, these tend to focus on the development of subject knowledge and expertise; there is less evidence of the development of the teaching and learning skills of staff. Staff workloads are high in some instances but appropriate to deliver the current curricula.

#### **4.8 The Effectiveness of Quality Management and Enhancement (EQME)**

36. This aspect makes a full contribution to the attainment of the stated ILOs in five universities and grade 4 is awarded. Grade 3 is awarded in one university and there is scope for improvement. However, two universities are awarded grade 2 where an acceptable contribution to the attainment of the stated ILOs is made, but there is room for significant improvement. Overall, this is the third strongest aspect jointly with the aspect CDCO.
37. There is evidence of effective and robust processes in place in a number of universities for reviewing and developing the curriculum. For example, in the University of Jordan the curriculum committee conducts regular reviews of the programme, and inputs are actively sought from alumni, the profession and the judiciary. Proposed changes are scrutinised at departmental, faculty and university level. In Al-Zaytoonah University, at Faculty level, the Study Plan Committee ensures that the curriculum is regularly scrutinised and updated as appropriate. A more systematic and holistic approach to the regular review of not only curriculum content but also its delivery and assessment is needed in most of the participating universities to provide a more effective approach to quality assurance and enhancement. A good example of this exists at Applied Sciences University: whereby there is an effective process of annual review by means of student evaluation, peer observation, internal review of assessments, staff reports on courses and the annual staff review conducted by the Dean.
38. Student consultation and feedback is a feature in all eight universities. Departments and faculties are open and responsive to student concerns and opinions through both formal and informal means. These consist of student involvement in committees, suggestion boxes and questionnaires for each module at the end of each semester. Students are able to cite examples of changes that have taken place as a result of their feedback. It would be helpful if more systematic methods of student feedback and action and response plans are developed to ensure that students feedback is considered.



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39. Quality and curricular currency are enhanced in all cases by contact with the legal profession and alumni. The processes by which feedback is captured vary from quite formal to very informal. In the cases where feedback is informal; opportunities to make this more formal would allow the universities to receive more systematic feedback across a chosen range of important criteria to better enable the measurement of students' performance.
40. All of the providers collect student data. In all cases, however, the information gathering process should become more systematic and should relate to a range of performance indicators, including enrolment numbers, student progression, and retention and achievement rates by cohort, and first destination statistics. Without information like this, it is difficult for the law providers to assure themselves on quality and standards and to identify and address basic issues.
41. External benchmarking of the programme has become a feature at some Universities. At Philadelphia University, procedures for the external monitoring of examination scripts have been introduced together with checks for consistency with modules aims and outcomes. The process is supported by regulations for selecting the external examiner and their remit. Al-Zaytoonah University is considering the introduction of a similar role. Quality assurance and enhancement procedures should be transparent and have the confidence of staff and the range of stakeholders. All participating universities should produce and maintain programme specifications as an integral part of these procedures, and the use of appropriate external reference points to confirm and verify achievement might, with benefit, be considered by a number of providers of law programmes.
42. All eight universities have staff development arrangements in place. In a number of instances, these relate to financial support for staff to undertake a higher degree at an overseas university. At one university, there is a useful programme of staff seminars to focus on learning and teaching methods and quality assurance issues as well as subject-based discussion. Generally, staff development around the subject discipline is sound but a greater focus on teaching; learning and assessment methods as part of the continuing insights into quality assurance processes would give a more rounded approach to staff development.
43. The SERs provided very useful bases for the eight reviews. They contained informative material on which the reviewers based the site visits and often contained helpful evaluations on the provision. It is clear that much will have been learned by the staff writing these documents about quality methods and standards, and also for those who produced the programme specifications.



#### 4.9 Conclusions and Recommendations for Improvements

44. The overall quality of the law programmes in the eight universities participating in the review is at least adequate . The strength of the aspects ranged from SPA and SSG with a mode and grade average of 4 to the less effective approaches to TLA, which has the lowest grade profile.
45. The positive features of the law provision in the eight universities include:
- a. Generally, the curricula, provide a good grounding in law, relevant and useful to students' subsequent careers. Most curricula met aims to provide students with appropriate knowledge combined with relevant practical experience.
  - b. Curricula are underpinned by pre-requisites, which ensure coherence and progression, and currency is kept under review with a range of new courses regularly introduced.
  - c. The collective initiative of the Deans of University Law Schools to review the curriculum and make proposals on the content and length that is needed to ensure appropriate depth of coverage is an important contribution to curriculum development.
  - d. There are effective teaching and learning strategies operating, though these are not always written down. In the best examples, there are clearly articulated strategies which are fully documented and align well to the aims and ILO's.
  - e. Teaching approaches comprised a range of courses and levels using a variety of methods and ensuring students engagement in the process. Students value the fact that many of the tutors are practising lawyers, and this contributes to the practical dimension of the classes.
  - f. Oral feedback is provided to the students following the examinations, and they are able to receive detailed and individual feedback in 'office hours'.
  - g. SPA rates are at least reasonable and sometimes good.
  - h. Student work reviewed included examination papers, coursework, the use of case studies and, where undertaken, final graduation projects. The work indicated that the students acquired good levels of technical competence, and there was evidence of the application of technical skills to specific problems, and case studies in later stages of the coursework examined by the reviewers indicated that the students acquired knowledge and understanding and were of an appropriate standard in general. Work in the graduate projects was of good quality, showing the development of student skills in research and evaluation.
  - i. Academic and pastoral support is generally effective and much appreciated by the students. There is a caring learning environment in all cases. Students' progress is tracked by tutors using effective electronic systems, and the students receive feedback on their annual progress.
  - j. There is an impressive range of student services at university level that include counselling, financial assistance, career advice and help for students with physical disabilities.
  - k. Learning Resources are generally good. There are mechanisms for the planned provision of resources. The libraries provide good learning environments, are open at least 50 hours per week, and contain sufficient book and journal stocks, including e-journals, to support the law programmes. Universities have introduced purpose-built mock court rooms which support the enhancement of the range of teaching activities.
  - l. EQME is in the best instances. Student consultation and feedback on quality issues is an important feature in all cases, with departments and faculties being responsive to student concerns and opinions.





46. Recommendations for the law provision in the eight universities include:

- a. Some universities would benefit from the further development of the Programme Specification and identify how the ILOs for individual courses contribute to the achievement of the overall aims of the degree. Such development should also focus on how learning outcomes at individual course level are taught, practised and assessed. Careful monitoring of the delivery and assessment of the ILOs will ensure they are achieved by students.
- b. There is a limited range of assessment methods used overall, largely reflecting the current dependence on formal examinations. A wider range of assessment methods would be appropriate to fully test the students' achievement of learning outcomes relating to legal research skills and higher levels of academic and critical abilities. Including a greater number of extended essay and complex problem questions in the overall assessment strategy which would challenge students to develop skills in these areas and fully test their abilities in their law programmes.
- c. There is too little evidence in students' work of the achievement of learning outcomes relating to analytical and evaluative skills even at levels 3 and 4.
- d. Although the number of teaching rooms is adequate, in some cases these are in need of refurbishment. In one case, a new building will be provided for housing the law programme, and this is welcomed.
- e. The collection and collation of data and information on SPA need to be more systematically and widely undertaken to support quality assurance processes and decision-making. There is scope for the development of a national structure of performance indicators that carries the confidence and support of all institutions and their stakeholders. Such a development would support institutions in their individual efforts to improve their management of information on performance and promote excellence.
- f. Staff development activities need to cover teaching and learning approaches to help ensure that appropriate standards for all teaching is in place, in addition to other activities such as discussing staff research papers.
- g. Quality assurance and enhancement procedures should be transparent and have the confidence of staff and the range of stakeholders. All participating universities should produce and maintain programme specifications as an integral part of these procedures, and the use of appropriate external reference points to confirm and verify achievement might, with benefit, be considered by a number of providers of law programmes.
- h. A more systematic and holistic approach to the regular review of not only curriculum content but also its delivery and assessment is needed in most of the participating universities to provide a more effective approach to quality assurance and enhancement.





## **Annexes**

### **Annex A: Universities participating in the Law review (2005-2006) in alphabetical order**

- Al Isra Private University
- Al Yarmouk University
- Al Zaytoonah Private University
- Applied Science Private University
- Jerash Private University
- Mu'tah University
- Philadelphia Private University
- University of Jordan

### **Annex B: Reviewers taking part in the review**

- Christine Plumbridge (Chair Reviewer)
- Christopher Gale
- Gwyneth Pitt
- John Hodgson (Chair Reviewer)
- Mike Cuthbert
- Richard Ward





# Quality Assessment of Nursing Programmes in Thirteen (13) Higher Education Institutions in Jordan

## Subject Overview Report

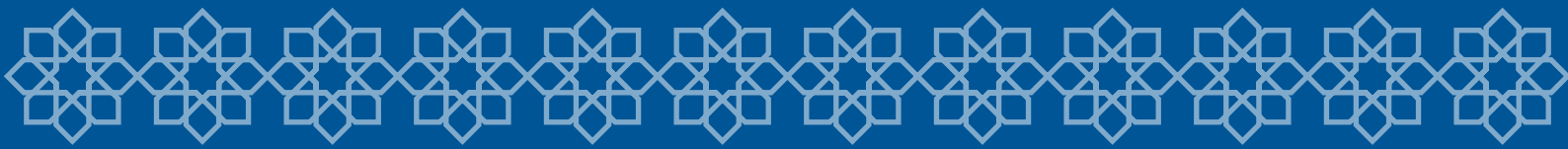
**Prepared by:**

**Andrea R. Lindell (RN, PhD)**

**(HFE Consultant to the Nursing Review Project)**

December, 2006





## 1. An Overview of Nursing Education in Jordan

The Associate Degree (AD) and Bachelor Degree level (BS) nursing programmes at thirteen Jordanian higher education institutions were reviewed under the auspices of Al Hussein Fund for Excellence (HFE), together with support from the Center for Quality Assurance in International Education in the United States. The HFE was established in 1999 with the mission of promoting excellence encouraging innovation and endorsing sustainable development in the Hashemite Kingdom of Jordan. The HFE has initiated projects to develop robust internal and external assessments of the quality of higher education in Jordan.

The on-site review visits occurred from November 13th through November 19th for the BS in Nursing, and through 21st, 2006 for the AD programmes. The visits were based on the HFE's subject review process, published January 2005 in the HFE Subject Review Handbook. The method has been adapted from the UK Quality Assurance Agency for Higher Education's academic review and developmental engagement processes to meet Jordanian higher education requirements.

In January 2006, the Center has revised and modified the HFE handbook to suit the requirements of the United States process of quality assurance/accreditation and of the professional review standards representative of CCNE (Bachelor level) and NLNAC (Associate Degree level).

The HFE provided a workshop in February 2006 to assist representatives from participating institutions in the preparation of the Self-Review reports and modified programme standards and categories. All participatory institutions submitted a self-review report on August 31st, which included a self-analysis of activities and elements related to the six categories which provided the basis for the on-site review visit to each institution's nursing programme.

The four review teams were introduced to the HFE by the Project Consultant. Each team consisted of two experienced peer reviewers, of which one was a team chair. They operated in four teams of two BS and two AD who conducted the site visits to six BS and seven AD nursing programmes, and prepared final review reports for the institutions they had visited.


The six BS and seven AD review reports on the nursing programmes and the review team meetings undertaken in Jordan and Cincinnati, USA, formed the basis for this overview report prepared by the Project Consultant.

## 2. The main features of the review method:

### 2.1 Review of nursing programmes against aims and objectives

The Accreditation Council at the Ministry of Higher Education and Scientific Research requires a degree of uniformity on the private institutions participating in the reviews of nursing programmes. However, within the arrangements for accreditation, each has a degree of autonomy to determine its





specific aims and objectives at subject level. The six universities and seven colleges vary in size, overall subject provision, history and mission.

The overall aim of the HFE, with the support of the Center, is to promote continuing quality improvements in nursing programmes in Jordan, provide reliable qualitative information on the quality and academic standards of the programmes, and ensure that there is the momentum necessary to maintain the enhancement process.

The intermediate objective of the HFE project is to raise the academic standards and quality of education of nursing in Jordan and to bring it in line with international academic standards. This will lead to better education and more effective students and will also attract students from other countries to study nursing in Jordan. The immediate output of the individual review reports of the participating institutions along with the short executive reports and overall report moved the faculty and staff to engage in a thorough self-assessment and analysis based on the standard categories and the identification of strengths and areas of enhancement.

The thirteen participating institutions were comprised of six bachelor-level nursing programmes and seven associate-degree nursing programmes. Of the participating bachelor-degree universities under review, four nursing programmes are public and two are private, and of the participating associate-degree colleges under review, four are public and three are private.

Each nursing programme had a sufficient degree of autonomy to determine its specific intended learning outcomes and objectives (ILO's) and methodologies under each category standard for attainment of the ILO. Each nursing faculty also had the flexibility to determine the process of evaluation to elicit how quality management of the six categories was also achieved. Therefore, subject review was carried in relation to the intended learning outcomes as determined by the faculty and identified the extent to which the nursing programme faculty was successful in achieving the ILOs through the process of data analysis and review by quality management procedures.

## **2.2 Review of student learning experience and student achievement**

The self-review by the faculty and staff in programmes of nursing examined the factors that shape and determine the learning experience and the achievements of the nursing programme students. The review components included the teaching and learning activities ranging from direct observation to teaching to methods used for assessing the quality and standard of student work. Documentation for review of student learning experience and achievement includes the reviewing of documents related to student work, classroom, theory and/or clinical, review of the curriculum, staff and faculty development, student support and guidance, the analysis of resources (library, information technology, lab equipment/supplies), and the review/evaluative processes utilized for the management of quality in each of the six category standards. The core six categories each reviewed:

1. Category I – Curriculum, Design Content and Organization
2. Category II – Teaching, Learning and Assessment
3. Category III – Student Progression and Achievement
4. Category IV – Student Support and guidance





5. Category V – Learning Resources

6. Category VI – The Effectiveness of Quality Management and Enhancement

It is through the process of review and technical support provided by a consultant hired for the project that the participating institution and nursing programme faculty have achieved:

- Development of plans to sustain academic standards and enhancement.
- Development of methods for internal improvements.
- Identification of the quality of teaching and learning methods and a move to place more emphasis on outcome-related ILO programmes with appropriate teaching, learning and assessment strategies
- Development and/or identification of appropriate measures in the assessment of student's intended learning outcomes.
- Identification of effective review systems and methodologies necessary to recognize strengths and areas of enhancement, with action plans needed to sustain the quality of the programme and programme aspects.
- The recognition that data systems and data-based information are necessary to demonstrate and document the measures of performance, the achievement of the ILO's based on measures of performance which are indicators of quality within their programme.

### 2.3 Evaluation review and scoring process of the six categories of standards

The evaluative review profile demonstrated:

- The extent to which the nursing programme achieved the intended learning programmatic outcomes, and the academic standards achieved demonstrate that the aims and goals set by the University for the Nursing Programmes are being met.
- The extent to which each category standard made a contribution to the achievement of the identified intended learning outcomes and self-review.

The determination of compliance with standard requirements was based on; the data presented in the self-review document, the professional judgment of the review team members and chair report on-site review verification and/or clarification with supporting documentation and other evidence as needed. The chair on behalf of the review teams applied the following criteria in determining profile review, compliance and outcome during the December 7th verification meeting held in Cincinnati, Ohio.


**Score 1:** The category standard objectives as identified are not met, therefore, there are major areas of enhancement that must be made.

**Score 2:** The programme has made acceptable attainment of the stated category standard objectives, but significant enhancement in areas should be made.

**Score 3:** The programme has made substantial attainment of the stated category standard objectives; however, there are some areas for necessary enhancement.

**Score 4:** The programme has made full achievement of the category standard objectives.





After the review reports were completed, the team and team chairs were asked to identify the university/nursing programme in terms of the strengths in attainment of the aim, ILO's, objectives and category standards with the prize awarded to the top nursing programme university. The top programme/university has to be considered "excellent" for achieving the intended learning outcomes within category standards and for being of comparable quality to the USA standards for review in order to be eligible for Al Hussein Award for Excellence. The review members and chairs at the verification meeting attain the final positive evaluative comments, and define the areas for needed enhancement based on the self-study report and on-site review documentation. The quality indicators form the basis for the identification of the top university nursing programme .

## 2.4 Review by peers

All of the eight reviewers taking part in the review process are academic and professionally experienced peers in nursing education. All are current members of faculty at USA universities and colleges. All reviewers are trained and are widely experienced in the review process in the United States, with several having overseas experience. In addition, the general manager of the HFE, the executive director of the Center for Quality Assurance in International Education and the lead Project Consultant provided briefings for the reviewers on the project held at a USA training session last September, in addition to e-mail communication briefings on the project, the intended learning outcomes, the self-study review report, the programme requirements, and all logistical travel and on-site review arrangements. During the on-site review visit, the review teams were supported by Jordanian translators and services from HFE general manager and her staff.

## 2.5 Review process (internal and external)

The review process is to evaluate the quality of nursing programmes provided by the participating universities in Jordan. It focused on the quality of the student learning experience and the student achievement in the nursing programmes at the bachelor level and associate degree level.

Two specialized workshops were conducted by the HFE, project consultant and the executive director of the Center for Quality Assurance in International Education (USA). One workshop was held for two days in Jordan to train the participant university departments on the entire process for the establishment of an internal system for quality enhancement and assurance that is prepared for external review. This process included the writing and development of the self-review report, on-site peer review, the development of information and data related to measuring programmatic performance, the writing of the programme categories and intended learning outcomes, the writing of the programme on-site visit with documentation needed, and the review method and preparation for the on-site visit. A workshop was held in Cincinnati, Ohio on September 15th. The purpose was to inform the on-site selected reviewers about the context of the Jordanian higher education, and update them on HFE review method to be employed while in Jordan as illustrated herewith;

- A two-day review visit to each university's nursing programme was carried out by a team of two reviewers, which included the team chair.
- Daily review team meetings were held, during which all team members assessed and evaluated the conclusion of the on-site review team report.
- Team member and chair made objective and subjective recommendations on the nursing programmes' strengths and areas to be enhanced.



- The completed on-site review team report with attached short summary assessment by team chair was sent to HFE.
- Part I Overview draft report was sent to HFE by the Project Consultant.
- Verification meeting comprising representatives from HFE, the Center, review chairs, project consultant was charged to finalize reports and programme review profiles in order to make recommendation to HFE Board on the award of the monetary prize and trophy.

On behalf of the external reviewers, the project consultant extends appreciation and thanks to HFE for their vision and support in their quest to contribute to the enhancement of Jordan's higher education. We also extend gratitude to the general manager of HFE and her staff for their support and assistance during the entire process. Finally, a special note of thanks to all the Institutions and nursing programmes who participated in the voluntary self-review process. The dedication to the provision of quality education for all future nurses is laudable. With this commitment, Jordanian citizens can expect the provision of quality health care from well educated associate and bachelor degree nurses.

### 3. The Review Report

#### 3.1 Introduction

This overview report has been derived from the self-review report and the on-site review team reports for nursing education (bachelor and associate degree) of the thirteen review visits completed in November, 2006 (Appendix A and B). These reviews foster continuous quality comprehensive self-review and evaluation of all programme components and encourage institution and individual programme constituents to look globally for comparative quality standards. This process benefits Jordanian citizens, academic institutions, current students and healthcare graduates. The benefit for a participating nursing programme is a focused internal self-review in concert with external attention on the quality of its programmes and graduates. The goal of the process report is to identify strengths, to emphasize potential areas for programme enhancement and to assist in the dissemination of best practice in the area of nursing education.

The review of the category standards and level of quality of the nursing bachelor and associate degree programmes was implemented by review teams composed of nurse expert reviewers, each led by a review team chair (Appendix B). In all cases, the teams reached consensus in their judgment of each university programme's mission, goals, objectives and intended learning outcomes as designed for student achievement.

The nursing programmes reviewed are based on the United States model of assessment and review by extrapolation of standards from the Commission on Collegiate Nursing Education and the National League of Nursing's Accreditation Accrediting Commission (NLNAC). The utilized standards modified from US standards aim to achieve significant breadth and depth in nursing content theory with clinical application. The breadth and depth are achieved by the number of courses that contain core competencies and skills that are transferable. Breadth is also achieved by students' engagement in elective courses that are broadly related to the field of nursing. Depth is achieved in core courses which are nursing-specific and contain a curricular paradigm of pre-requisite and sequential design.



### 3.2 Nursing Programme Strengths

Several consistent areas of the reviewed nursing programmes demonstrate strengths of nursing education in Jordan. Those are listed and briefly described here. These areas are shared by at least several of the reviewed programmes at either the bachelor or associate level reviewed programmes. Strengths that are found in only a few of the nursing programmes are not mentioned here. The reports of the Chairs of the Review Teams “Overall Executive Assessment of the Programme reports” were sent to individual participating universities. They describe additional strengths and provide greater detail about programme strengths, programme areas to enhance, programme plan for the future and programme overall quality of nursing education for each Institutional nursing programme that participated in the HFE project.

#### 3.2.1 Associate Degree Nursing Programmes

##### Curriculum plan

Throughout the set of reviewed programmes, curricular design and the number of credits allocated to “didactic” vs. clinical education was a constant variable. Programmes were in the beginning phase of the identification of the intended learning outcomes as a guide for curriculum content and articulation with mission and philosophy of the overall institution/college. Several of the programmes developed strategies to ensure that curriculum represented current up-to-date content through membership in Jordanian councils, organizations, or partnerships within the international arena. College administration is overall supportive of the nursing programme, and displayed vision for the future which enabled growth and change to occur. Through institutional and administrative support, several programmes enjoy nursing laboratories that provide student with access to technology and nursing science learning equipment. Nursing faculty and staff have been identified as hard-working, passionate for the nursing profession, highly motivated and dedicated to students and to quality education. It is this dedication to students and to quality education that places faculty in the position of being overworked and responsive to large numbers of students and environments that are better suited to smaller ratios of students per faculty. It is the smaller ratio of students to faculty that promote an increased level of engagement and interaction and accountability for self-learning by the nursing students.

All students and faculty engage in the English language in curricular, didactic and clinical teaching and learning methodologies. However, reviewers noticed that in order to enhance student understanding or in times of programmatic stress, Arabic language was used for further clarification.

##### Faculty/Staff Teaching Expertise

The faculty members in various programmes were cited for their commitment, motivation, passion and hard-working attributes related to the education of nursing students. Some of the faculty and staff were credentialed at the master’s degree in nursing, while the majority had at least a bachelor education. Several of the programmes developed or are in the process of developing faculty development plans to foster the attainment of advanced degrees from appropriate institutions within Jordan as well as from Western European or United States institutions. One of the most important aspects of a quality nursing education programme is sufficient faculty, who are adequately prepared





academically and experientially. It is important that nursing programme administrators continue to provide the opportunity for advanced career opportunities and faculty ongoing professional development.

Faculty members model the philosophy of the programme to the students and to their respective community. Faculty members demonstrate commitment through student advising, holding of regular office hours and availability to students needing mentorship or support as they engage in direct patient care. Broad-based throughout the associate degree, nursing programmes' enhancement of resources and environmental space is a commitment verbalized and demonstrated by the institution. Enhancement strategies ranged from new space for clinical laboratories, additional teaching/learning equipment, to a new library facility which contains reference material in nursing sciences and internet databases. A demonstrated strength is the utilization of the library computer laboratories by students along with encouragement of the integration of computers and internet extensively in classroom and independent student learning space.

The faculty strive to enhance nursing education rates for the B.Sc. exam at or above the 70% - 75% rate. Programme faculty and staff continue to work arduously to integrate and further refine the definition of intended learning objectives with the insurance of internal consistency of application of the ILO's with course objectives, level objectives, programme outcomes through the mission of the entire institution. Faculty continue to provide increased opportunities for students to assimilate the use of English into their vocabulary through the assignment of oral class presentation, and enhanced utilization of computers as a method of self-directed learning.

### **Quality Management**


Reviewers indicate that all nursing programmes demonstrate varied degrees of internal review and assessment as part of total programmatic quality management. The strengths of the programmes engaged in segments of quality management result from the beginning of their participation in the review process and through the advocacy of HFE. Programmes have made tremendous strides since the introduction of a total quality management process that is to be utilized to assess and evaluate all aspects of the programme. Varying degrees of participation elicited achievements as definition of intended learning outcomes, collection of data related to admission characteristics, identification of programmatic needs based on curricular design, evaluation of faculty teaching strategies, assessment and evaluation of teaching methodologies by students, assessment and review of student attainment of skills and competencies; didactic and or clinical. Faculty members and administrators welcomed the collegial interchange with on-site reviewers and expressed appreciation for enhanced learning from the suggestions offered by the reviewers.

### **3.2.2 Bachelor Degree Nursing Programmes**

#### **Curriculum Plan**

The faculties in the bachelor-degree nursing programmes demonstrate a sense of collaboration and teamwork among and between the dean/department heads in the commitment to quality education.





Several programmes demonstrate a curriculum design that is clearly stated, while intended learning outcomes with programme objectives are congruent with programmatic aims and the mission of the institution. The relationships demonstrated in the curricular paradigm enable students to achieve the intended learning outcomes. Furthermore, a diversity of the background of the faculty results in a strong curriculum, a strong curricular structure, and concise organizational content mapping. Other programmes demonstrate succinct levels of depth and breadth in the design of content levelling as the student progresses from course to course.

A significant strength that is evidenced in the various nursing programmes is the academic qualifications and experiences of the faculty academic staff. The high academic qualifications include diversity of attained degrees, ranging from master's to doctoral. It is the academic qualifications which allow for the effective delivery of curricula and the provision of a wide variety of clinical experiences to students in all programmatic specialty areas. Interactions with students by reviewers indicated that students generally understood the goal of the programme. They easily described the strategies utilized by faculty in classroom and clinical learning experiences to facilitate the achievement of the intended learning outcomes. Strategies ranged from the faculty provision of syllabi for each course, which contained objectives, learning experiences, grading scale and evaluative criteria. Furthermore, faculty members are competent in major areas of nursing which also contribute to the delivery of a curriculum that is current in content and available in resources. As faculty strive to enhance areas within curricular design, content and organization, the relationships between course objectives and programme ILO's have been mapped, which will ensure that the curriculum enables students to achieve ILO's.

### **Faculty/Staff Teaching Expertise**

It is clearly evident throughout the nursing programmes that the institutional commitment and support to the nursing programmes is strong and varies in type of resource allocation. Faculty expertise is broad and appropriate to the academic setting. Programmes are administered by a dean with department heads that are competent and qualified for the role. Faculty and staff are competent in the major areas of nursing which contribute to the attainment of the programmatic goals, aims, and ILO's. Courses are presented by experienced faculty/staff using primarily the lecture method. Reviewers indicated limited evidence of active learning techniques as one teaching/learning methodology. Department heads and deans provide guidance to faculty members to assure implementation of high quality curriculum.

It is important to ensure diversity in the type of curricular learning experiences in the classroom and clinical settings; however, having a large number of students may have an effect on faculty's ability to secure and/or offer diverse/varied teaching/learning experiences. Documentation and interactions with faculty/staff suggest the large number of students in the nursing programmes leave little time for scholarly or research activities. The heavy workload and time commitment detracts from faculty's ability to achieve the required criteria for review, promotion and/or tenure established by the Ministry of Higher Education and Scientific Research. Enhancement strategies for increased student enrolment result in the utilization of preceptor system in several clinical settings. A cautionary note is that the increased use of clinical preceptors may result in a decrease in the consistency of the theoretical content integration into the clinical practice arena.





## Quality Management

In the majority of the reviewed institutions, the bachelor level nursing programmes began the systematic quality improvement assessment and review. Programmes worked arduously with the identification of relevant plan indices and evaluative indicators which direct relevant data collection for the ongoing comparison to determine the attainment of improvement and quality. Since their initial participation in February 2006 in the HFE project, participating universities made impressive progress in the attainment of a quality management process. Progress strategies ranged from the establishment of an office to oversee quality management procedures in process to nursing programme faculty development of a new strategic plan, the relocation strategies to enlarge and enhance the teaching/learning environment, and data benchmarking indicators to improve and maintain student success rate on the national competency exam.

## 4. Opportunities for Enhancement of Nursing Programmes

The review of the self-evaluative reports and on-site reviews resulted in the identification of opportunities by faculty to enhance or strengthen the programme and programme plans for the future. As with the strengths listed previously, this overview report details only issues that surfaced in numerous institutions. The reports of the Chairs of the Review Teams, sent to participating universities, present a more comprehensive profile.

During the identification of opportunities for improvement of nursing programmes, a common set of themes surfaced as a result of reviewing the self-evaluative report and on-site reviews. Consistent themes emerged in the associate-degree programme and the bachelor-level programmes; therefore, the following is a consolidation across both levels.

### 4.1 Programme Enhancement

As each nursing programme volunteered for the HFE quality assurance review, this is an indication that the institutions and the nursing programmes seek opportunities. There was considerable investment by each nursing programme and institution to engage in the self-review and assessment process. Many programmes attempted to delineate a comprehensive plan of evaluation with specific indicators that would demonstrate the attainment of quality. Some institutions enhanced the environment in a variety of ways such as:

- Development of new learning laboratory space,
- Increasing learning resources,
- Ensuring that all nursing textbooks and references were up-to-date and no older than the year 2005,
- Provision of increase of multidimensional teaching/learning strategies, particularly in the area of problem-based, and
- Elevation of a department of nursing to the status of faculty of nursing.

Faculty and staff expressed appreciation for the opportunity to gain and receive information during the entire internal and external review process.



## 4.2 Student Enrolment, Investment and Facility Capability

Nurses and healthcare are intertwined. The nursing profession is generally viewed as the most trusted profession and is given the honour because nurses are perceived as the backbone and the heart of the healthcare system. Nurses are the 24/7 caregivers who provide safe passage for patients. Adequately prepared nurses provide for every patient the same quality of care they would give their own family members.

While the majority of the population truly believe the prior statement, one of the most challenging aspects to a faculty and administration in the delivery of a quality educational programme is the assumption that a programme can absorb unlimited numbers of students while retaining a high measure of quality. It is this phenomenon that was evident in the majority of nursing programmes currently in existence. The issue of increased student enrolment and the impact on quality in classroom and clinical teaching and learning can result in significant interrelated issues. Reports generated concur with the faculty-presented concerns that increased numbers of students without sufficient qualified faculty and staff, sufficient resources such as clinical learning laboratories, and sufficient clinical learning practice sites over time will negatively affect the practice qualifications of the graduates and their abilities to compete locally and globally.

On-site reviewers identified the lack of adequate clinical facility learning experiences due to the placement of a high number of students from all nursing programmes throughout the country. As programmes strive to enhance and maintain quality, by securing appropriate clinical experience which must articulate to core classroom content, the sheer volume of students prohibits every student from having the opportunity to engage in required clinical learning experiences under the supervision of a qualified faculty/supervisor.

At this time, the Ministry of Higher Education and Scientific Research has, to a large extent, the responsibility for determining the admission and number of students to be enrolled in universities and nursing programmes. Nursing's inability to impact the number of students admitted into nursing has a current negative effect. Currently the over-enrolment of students in the nursing programmes strains the current resources, including classroom, computer, instructional technology, laboratory space/equipment and availability of appropriate clinical learning sites. The strain on these resources, particularly the limited availability of adequate clinical learning sites, will result in the decrease of students' ability to gain proficient and needed technical skills and competencies, while limited classroom and other campus resources hinder the delivery of quality theoretical content.

As identified earlier in this report, increased students' numbers have a cause and effect within the nursing programme. As faculty workload increases, the time for scholarly and research output is significantly decreased. Faculty availability to counsel and mentor students becomes limited; thereby the erosion of faculty as a resource to students can occur.

The overarching cause and effect of high student numbers (enrolment) allocated to public institution nursing programmes will impact the nursing curriculum and significantly strain the availability of





sufficient experiential learning sites that prepare the nurse to deliver quality patient care. During one on-site review to a private institution, it became evident that within the competitive process in the country for admissions and the guidelines of the Ministry of Higher Education and Scientific Research, the nursing programme functioned well. The university set admission standards higher than the minimum required for high school proficiency examination for admission to the faculty of nursing and conveyed the number of seats available to the Ministry of Higher Education and Scientific Research.

The increased enrolment was the impetus for nursing programmes to implement strategies such as the creation of new positions to assist in the reduction of day-to-day operational activities, and the increased use of teaching assistants for laboratory and clinical teaching under the supervision of academic faculty. It is important to monitor if increased enrolment will have a negative effect on student progression and knowledge acquisition due to limited availability of faculty time, resources and adequate clinical learning experiences.

#### 4.3 Instructional Technology

The use of instructional technology has been identified as an area to enhance and/or strengthen the nursing curricula. Faculty members are beginning to use blackboard for course management, and students were observed to carry their own laptops or other instructional devices. Nursing programmes should maintain state-of-the-art simulators within their learning resource laboratories, thereby increasing effective teaching. While several institutions maintain collaborative arrangements, (i.e. faculty of nursing and the University Of Nebraska College Of Nursing) to enhance ability for increased effective implementation of instructional equipment, not all nursing faculty are afforded opportunities for the intellectual exchange of ideas and knowledge. It is vital for administration to identify opportunities to foster development of current associate and bachelor degree programmes. The use of instructional technology and collegial interchanges inspire faculty and students to excel in practice, to excel in care, to excel in scholarship, and to excel in research. Technologies also assist faculty to present enhanced presentations of simulated case management and/or teaching/learning scenarios and serve as communication tools for coursework (vis-à-vis websites).


#### 4.4 Geographical Location

The thirteen campuses visited varied greatly in geographical location, urban versus rural. It was noted that nursing programmes in institutions located in urban sectors of the country appear to receive more resources, retain quality academic and experiential faculty, and have a student body that have very high grades on the Tawjihi (which can reach an average of 90%). Institutions in the rural area expressed concern about the limited resources available for student learning, especially proximity to adequate and sufficient clinical learning sites and facilities.

#### 4.5 Demographics

Faculty in the nursing programmes recognize the rapid increase of men into the nursing programme. Concern was raised about the shift toward increased males in nursing. A vital question surfaced: will there be sufficient healthcare for women in the future? In response to this concern, one university nursing programme initiated a (women only) cohort of 40 students admitted Fall, 2006.





Upon graduation, students become the best ambassadors on behalf of their alma mater. During their course of instruction, it is important for students to be able to avail themselves of sufficient learning resources, space, and a caring environment, regardless of their geographical location. A well-maintained and caring professional environment fosters the behaviour of students to accept the inherent roles of responsibility, accountability, and professionalism that is essential for all future nurses in the provision of healthcare to the citizens of Jordan and beyond its borders.

#### 4.6 Curricular Design, Content and Organization

The range of programmes' strengths and the areas needing enhancement in the area of curricular design, content and organization is varied and diverse throughout all the A.D. and B.S.N. nursing programmes. Some programmes demonstrate a well-organized, internally consistent curricular design, while other programmes do not clearly operationalize educational aims of the programme. There is evidence of a lack of demonstration between the aims and course objectives to traditional content area, and limited evidence of active learning techniques. All nursing programme faculty are dedicated to classroom and clinical teaching techniques and skills. However, some programmes have limited evaluative strategies to verify that students were adequately challenged to develop the critical thinking skills needed for independent nursing practice.

The Ministry of Higher Education and Scientific Research has a role in approving curricular structure changes; however, faculty are encouraged to continue to ensure curricular content is continually modified and revised to ensure accuracy and adequacy in content delivery based on changes in healthcare needs by society. It is essential to maintain a vibrant curriculum to meet the healthcare system needs.

Total quality management and measurement of programme ILO's are recognized as excellent ways for nursing education to grow and develop. The healthcare system that changes rapidly and, to the dismay of faculty, a curriculum plan developed several years ago may be out of date by the time the nursing programme graduates the cohort admitted prior. The challenge to faculty and nursing programme administration and institutions is to design a curricular plan that is responsive to change and at the same time envisions the future and will prepare a nurse who can meet future healthcare needs. International collaborative initiatives among educational nursing programmes have increased. Participation in curriculum development and instructional strategies between countries lead to enrichment of faculty's appreciation for other cultures and potential application to their own curriculum and learning experiences. Therefore, faculty and student exchanges can promote cross-cultural understanding and opportunities for teaching, curricular enhancement and teaching/learning experiences.

In summary, the areas in need of enhancement as per the recommendations of the reviewers relate to curriculum design, organization and structure. Reviewers believe it is important to note that the concept of curricular design brings into focus the various theoretical and practical issues concerned with curriculum development. An adequate curriculum design will define the important components or aspects of the curriculum and determine their relationship to others and to the tasks to be undertaken. A curricular scheme will provide a consistent framework of values and priorities





for dealing with the operational decisions of teaching/learning situations. A curricular design has the quality of organic unity in which the decisions and demands of the educational endeavour are coherent and identifiable. The curricular design should: (1) identify the factors involved in the curriculum; (2) define the relation between these factors and other activities; and (3) predict and control the educational behaviour of the learner.

## 5. Conclusion

All the aforementioned areas for enhancement are identified from a framework of collaboration and assistance to improve the total quality within all nursing programmes. It is through the process of review, self-assessment and quality management that nursing education will continue to graduate nurses prepared to provide systematic, complex, comprehensive healthcare to people from diverse backgrounds. This systematic approach to quality healthcare will enable the forward movement in the quest for increased viability as a nursing profession that is desired by males and females alike.





## Appendices

### Appendix A: Colleges and Universities participating in this review

#### Associate Degree Nursing Programmes (In alphabetical order)

- Al-Balqa – Al Quds College Nursing Programme
- Al-Balqa - Al-Karak College Nursing Programme
- Al-Balqa - Al-Salt College Nursing Programme
- Al-Balqa - Gordoba College Nursing Programme
- Al-Balqa - Khawarizmi College Department of Nursing
- Al-Balqa – Ma'an College of Applied Science
- Al-Balqa - Nusyba Al Maziniyya College of Nursing

#### Bachelor Degree Nursing Programme (In alphabetical order)

- Al-Zaytoonah Private University, Faculty of Nursing
- Applied Science Private University, Faculty of Nursing
- Hashemite University, Faculty of Nursing
- Jordan University of Science & Technology, Faculty of Nursing
- Mu'tah University, Faculty of Nursing
- University of Jordan, Faculty of Nursing

### Appendix B: Reviewers

- Mary Dalpiaz (A.D.) (Chair Reviewer)
- Gloria Kline (A.D.)
- Sheryl Stuck (A.D.) (Chair Reviewer)
- Fran Hammerly (A.D.)
- Amy Pettigrew (B.S.N.) (Chair Reviewer)
- Carol Deets (B.S.N.)
- Lou Ann Emerson (B.S.N.) (Chair Reviewer)
- Jeri Milstead (B.S.N.)







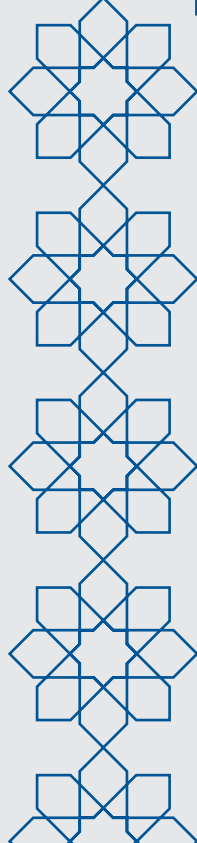


# Quality Assessment of Accounting Programmes in Eleven (11) Jordanian Universities

## Subject Overview Report

**Prepared by:**  
**Dr. Milton R. Blood**  
**(Subject Consultant)**

December 2006







## 1. Quality Assessment of Accounting Education in Jordan

Since year 2000, Al Hussein Fund for Excellence (HFE) has sponsored reviews of higher education programs in Jordan. These reviews foster continuous improvement in higher education institutions and encourage institutions and individual academics to look globally for comparable quality standards. This process benefits Jordanian higher education institutions and their graduates. Each year HFE selects disciplines for review. Eligible universities volunteer their participation in the process. The benefit for a participating university is the opportunity to have focused, internal and external attention on the quality of its programs in the selected disciplines. The quality focus includes both a thorough internal self-evaluation and rigorous scrutiny by external reviewers who are experts in the discipline.

In 2006 eleven universities participated in a review process for their undergraduate programs in accounting. The review process followed guidelines and procedures that had been established in the reviews of their academic disciplines in previous years and been described in Quality Assessment and Enhancement for Higher Education in Jordan: the program Review Handbook, published by HFE in January 2006. The reviews were accomplished with the collaboration of the Center for Quality Assurance in International Education (Washington, D.C., USA).

The external reviewers and the subject consultant wish to praise the wisdom of the HFE for creating and persisting in their superb efforts to enhance Jordanian higher education. We also want to acknowledge the efforts of the General Manager and staff of HFE for their work to support and implement this review process. We would not have been able to perform our tasks without their able management of relationships and logistics.

## 2. The Accounting Review Process

### 2.1 Preliminary Workshop

As a first step, the HFE invited Jordanian universities with accounting programs to send representatives to a workshop in January 2006. Thirteen universities took part in the workshop. All of them dispatched multiple representatives – usually the head of the Accounting Department, the dean of the faculty which includes the accounting program, and the academic vice president or some other university executive. Topics treated at the workshop included:

- The goals of the HFE review,
- How HFE quality assurance efforts coincide with regional and global activities in higher education,
- Expectations for the program and institution in completing both its self-evaluation and self-evaluation report,
- Procedures for the external review, and
- Evaluative criteria for determination of educational quality results in the HFE review process.





## 2.2 Document Review

Following the workshop, eleven of the thirteen institutions completed a self-evaluation report that was forwarded to HFE by the deadline of July 13, 2006. Noted accounting educators from the United States of America were engaged to conduct the external reviews. Those educators came together in Washington, D.C. in early August to participate in training and in the HFE criteria, and to prepare for the external reviews. A list of the eleven institutions and information concerning the assigned reviewers can be seen in Appendices A and B. Two expert reviewers working as a team reviewed each accounting program. The team read the self-evaluation report and sent their preliminary analysis of the report to the accounting program. This analysis normally asked for additional information as necessary to clarify questions that arose from the analysis. The team also arranged for the visit and agreed with the program on a schedule of activities for the visit. Programs responded with additional information as requested and prepared for the visit.

## 2.3 On-Site Review

The external review visits took place in October and November 2006. The review team spent two full days on site at each institution, during which time they discussed various aspects of the program with administrators, teaching staff members, students, graduates, employers of graduates, and other parties as necessary to understand the operations of the program. They also collected and reviewed data, observed classes, and viewed facilities and technology employed in the program.

## 2.4 Review Reports

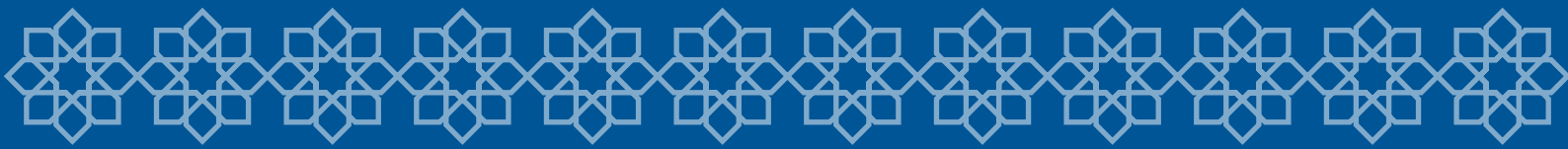
The HFE has shared a draft report from each visit with the respective institution to allow for the correction of factual errors. Then, the reviewers, the subject consultant, the Center President, and the HFE General Manager met in Cincinnati, Ohio, USA to discuss the set of reports. They made final refinements to the reports and to the quantitative evaluations to assure consistency across the entire set of reviews and evaluations.

The reviewers evaluated programs on six aspects of educational quality:

1. Curriculum design, content, and organization,
2. Teaching, learning, and assessment,
3. Student progression and achievement,
4. Student support and guidance,
5. Learning resources, and
6. Effectiveness of quality management and enhancement.

In accordance with the HFE Handbook, reviewers intended to assign numerical scores for the six aspects and then to generate a summed score for each program. The summed score would then have designated an overall quality index for the accounting programs. After conducting the reviews, and during the verification meeting for the evaluations, the reviewers and consultant decided not to use and report the numerical scoring system. We felt that too much information would be lost in trying to reduce the evaluations to numbers, and that the use of numbers would distract readers of the evaluations from the constructive evaluation reports; that is, too much attention would be given to small numerical differences, and readers might not focus on the wording of the reports





that is intended to help the accounting departments to evaluate themselves and to recognize needed improvements. Thus, the final visit reports do not contain numerical scores for the quality aspects.

An accounting program regarded by reviewers as showing the highest educational quality was identified by the reviewers. Each participating institution would receive a final report of the reviewers' comments from their evaluation.

### 2.5 Follow-Up to the Review

The process calls for follow-up visits to each of the reviewed institutions in two years. A focus of the follow-up will be to assess any areas that were suggested for improvement, in addition to any other recommendations made by the reviewers to the participating university.

## 3. Accounting Program Strengths

Several features of the reviewed accounting programs demonstrate strengths of accounting education in Jordan. Those are listed and briefly described here. These features are shared by at least several of the reviewed programs. Individual review reports describe additional strengths, and the individual reports provide greater details about program strengths than this overview report. Strengths that are found in only a few of the programs are not listed here. While each of these listed strengths may not be evident in every reviewed accounting program, they were pervasive enough to consider as substantially characteristic of Jordanian accounting education.

### 3.1 Teaching Staff Competence

The teaching staff members of reviewed schools were cited in numerous schools for the quality of educational and experience backgrounds they bring to their programs. Several of the schools in their hiring process insist on recruiting graduates from Western European or United States institutions. Throughout the set of reviewed programs, well-trained teaching staff members delivered the educational offerings. Universities have developed processes to discover academically talented students and then to support those students throughout their graduate education so that they can return as members of the teaching staff. Since the intellectual capital of the teaching staff members is one of the most fundamental components of quality in higher education, teaching staff competence is a critical strength to be maintained and enhanced.

### 3.2 Teaching Staff Commitment to Students

In virtually all of the programs, students, graduates, and often employers commented on teaching staff members' commitment to student learning. Teaching staff members are unified in their dedication to the goals of the accounting programs as defined by the Intended Learning Outcomes (ILOs). Students recognize that the teaching staff members care about students' academic success. Teaching staff members demonstrate their commitment in a variety of ways in many schools. This is evident in student counselling, regular office hours and availability to students who need assistance, keeping teaching materials and syllabi current, and with well-defined ILOs.



### 3.3 Student Commitment to Programs

The teaching staff competence and commitment have a counterpart in the reaction of students to their programs. Throughout their interviews with students, the reviewers found that students are happy with the university they are attending. Several said that they would recommend the university they are attending to their siblings.

### 3.4 Accounting Department Desire for Program Enhancement

By one measure, every one of the reviewed programs looks for opportunities for program enhancement, and each of the programs took part voluntarily in the HFE quality assurance review. Each of them invested considerable effort into preparing the self-evaluation report and participating in the external review portion of the process. Other indicators of the Accounting Departments' interest in quality improvement are several programs with newly constructed or revised curricula, and programs with internal management mechanisms to assess their program's success and to seek out opportunities for course or program enhancement. Teaching staff members and administrators welcomed suggestions for improvement from the reviewers and were eager to implement them.

### 3.5 Institutional Culture of Quality

In several of the reviewed institutions, a structured culture of quality is developing. In large measure this results from the institution's participation in the HFE review process of other disciplines in previous years. Since the HFE process itself is rather recent, the degree of development of quality processes at some of the schools should be seen as quite impressive. Such institutions have established an office to oversee quality assurance activity throughout the institution, and they have begun to integrate quality assurance and improvement processes through numerous academic units; that is, independent of the HFE quality reviews, the institutions conduct their own quality assessments and develop their own continuous improvement projects.


## 4. Opportunities for Improvement of Accounting Programs

The reviews identified several accounting program features that provide opportunities to enhance Jordanian accounting education. As with the strengths listed above, this overview report lists only issues that arose in numerous institutions.

### 4.1 Lack of Breadth in Accounting Curricula

The undergraduate accounting curricula in the reviewed schools typically require 120-130 credit hours in four years of study. Of that total, 60-70 credit hours are in required courses in accounting. This is an extraordinary proportion of the curriculum to devote to accounting. Though they allow graduates to attain depth in accounting studies, these curricula leave little room for students to attain breadth in social science and general business knowledge. Students gain technical expertise in accounting, but they are not able to pursue those courses that would develop the whole person. Graduates may, thus, be prepared for their entry job into an accounting career, but they are not likely to have a broad understanding of business that will allow them to move upward into general management or corporate leadership positions as their careers develop. The Ministry of Higher Education requires





this curricular structure. Institutions do revise and modify their curricula to ensure that they deliver current concepts and practices, but these revisions must occur within the strictures of required curriculum structure. Discussions should begin to consider ways to modify the requirements and to give the institutions more flexibility to create curricula to fit their student populations and employer expectations.

#### **4.2 Low Expectations from students regarding the Amount of Material to be learned**

Across virtually all of the reviewed accounting programs, reviewers noted that the amount of learning taking place within individual accounting courses is insufficient and proceeds at an unusually slow pace. Courses are not sufficiently demanding. Two courses may be required to cover the amount of accounting knowledge that would normally be delivered elsewhere in a single course. This situation occurs within educational practices that put little individual learning responsibility on the student. Most learning takes place within the classroom. Students have relatively little opportunities to learn through reading assignments, cases, and projects that are undertaken outside of class. At several institutions, students acknowledged to the reviewers that expectations were minimal for cases and projects to be done outside of class. Students themselves told the reviewers that they would be able to do substantially more than was required of them. The resolution to this issue could assist with the breadth issue raised in the previous point. If accounting courses required more work and progress, some of the excess of accounting credit hours in the curriculum could be converted into valuable breadth courses.

#### **4.3 Insufficient Use of English**


Three of the eleven programs were commended in the review reports for the strong English language skills students possess and the extensive use of English in teaching the program. Conversely, six programs were noted for using little or no English in teaching the program. To prepare graduates to perform well in the global corporate and financial marketplace, they must become conversant in English, the international language of business. This point was emphasized to the reviewers in discussions with students, graduates and employers. Even with strong technical accounting skills, graduates will not be attractive to employers engaged in international business if they do not also have a good command of English.

#### **4.4 Flexibility in Grading Practice**

Many of the reviewed accounting programs base course grades on a rigid formula with a weighting of 20% for the first exam, 20% for the second exam, 50% for the final exam, and 10% for other coursework. Though it does not seem to be the case, some teaching staff members believe this grading formula is externally imposed on them. In fact, the Ministry of Higher Education places a maximum of 50% on the final exam, but does not say that it must be 50%. Nor does the Ministry have a formula for other portions of grading. If the Accounting Department considers a formula set by the university to be rigid, it should address this issue with the university administration.

In accounting, much valuable learning experience should be gained from case studies, projects, and problem solving, rather than in learning material for a traditional examination situation. Since non-examination learning experiences can only amount to 10% of the grade under this rigid formula,





teaching staff members and students have little incentive to use their efforts on such activities. Requiring 50% of a course grade to be determined by a final examination is inappropriate for an accounting course, and it has negative influences on the course structure. Teaching staff should use more flexibility and should structure their grading practices to place more emphasis on learning experiences that fit with their accounting topics.

#### 4.5 Assignment of Teaching

The teaching assignment model prevalent in the reviewed programs placed the greatest burden on junior teaching staff. For most programs, teaching expectations were as follows: lecturers taught 15 hours a week, assistant professors 12 hours, associate professors 12 hours, and full professors 9 hours. Junior teaching staff members are called on for heavy administrative responsibilities such as serving as a department chair. While they normally receive a reduction of three teaching hours by taking on this administrative responsibility, they are still left with a heavy burden in addition to research expectations. To achieve promotion, junior teaching staff members must successfully complete research and publications. It is appropriate to encourage research among junior teaching staff since they have recent training in current disciplinary developments and research methods. However, the conflict between the research expectations and the heavy teaching and administrative load creates a dilemma that may result in less rigorous coverage of course materials. This practice may also produce barriers to promotion to senior ranks even in the case of highly skilled teaching staff.

#### 4.6 Use of Instructional Technology

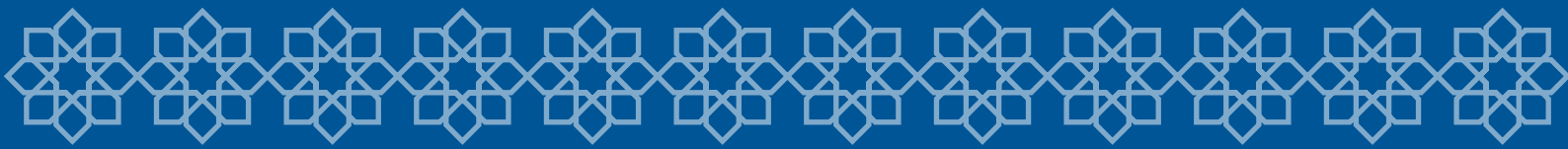
Teaching staff in many of the universities could enhance the effectiveness of their teaching through increased use of technologies such as overhead projectors and PowerPoint presentations. These technologies can help make presentations clearer, and in cases of large classes the use of such technology can make examples easier to follow for persons seated at a distance from the lecturer. Additionally, PowerPoint slides can be downloaded by students to use as additional learning aids.

Another use of technology that reviewers felt would be helpful are departmental websites to serve as communication tools for coursework. Reviewers noted that in many classes syllabi do not provide a complete listing of assignments such as case studies, projects, and problem solving opportunities. In some institutions, limited copying capacity was cited as the reason for the insufficient supply of comprehensive information to students. A functional website could make these course materials available to students. Since a positive finding was the high level of access students have to computers that are connected to the internet, the use of a website would encourage students to use the internet, and it would serve to emphasize students' responsibilities for their learning.

#### 4.7 Teaching Staff Hiring Criteria

The reviewed accounting departments varied greatly in the standards they use when hiring teaching staff. At the positive end of hiring practices are schools that insist on hiring only scholars who have completed graduate training in western universities and who have excellent English language skills. Some schools make temporary appointments or leave vacancies rather than hire teaching staff who do not meet these standards. At this low end of the spectrum are schools that hire teaching staff without investing sufficient time in verifying their academic credentials. A national process is needed to qualify





degrees for teaching staff positions. Such a process need not be burdensome or time consuming, but it should provide assurance that students are learning from qualified individuals.

#### 4.8 Maintenance of the Academic Environment

The eleven campuses visited varied greatly in the amount of attention given to maintenance and appearance. At the high end are a few of the campuses that welcome students, staff, and visitors with excellently maintained buildings and grounds. These few campuses could serve as examples for the others, whilst other institutions deferred campus maintenance due to stringent budget conditions. Unfortunately, in this latter situation poor maintenance of facilities is often accompanied by misuse. Buildings and grounds are strewn with discarded papers and other litter that presents an uninviting and unprofessional environment for academic work. In some cases “No Smoking” signs are ignored, and thus students and teaching staff alike may be seen smoking with impunity.

Accounting graduates will join governmental and corporate organizations in important professional roles. A clean and orderly environment during this formative portion of their careers will assist them to think of themselves as professionals. As university students they engage in a critically important stage of their careers; creating a professional environment for them will help them to realize the seriousness of their endeavours.


#### 4.9 Student admissions

Ministry of Higher Education and Scientific Research (MoHESR) sets admission requirements for private university programs in a manner by which they do not exceed their maximum capacity of student intake to maintain the quality of their provisions. As a result, this ensures that students and staff alike, are provided with effective teaching and learning opportunities, and provides faculty members with the time and opportunity to focus on their research and postgraduate studies and provides them with adequate time to be further exposed to the ever changing needs of the private, public and business sectors.

On the contrary, the student enrolment rates at public universities are alarming and may become a threat to the quality of public higher education in Jordan. The large numbers of students in large classrooms is burdensome on faculty members and may negatively impact the effectiveness and efficiency of the teaching and learning experience. Additionally, the large number of student to faculty ratio reduces the opportunities for students to receive direct supervision from their professors and may also reduce the attentiveness of students in classrooms. Moreover, it encourages faculty members to exploit the use of multiple choice questions to avoid correcting large numbers of analytical and descriptive papers, which results in negligence of the use of assessment methods that develop students’ analytical and descriptive thinking.

The aforementioned challenges constrain faculty members from conducting the required research and career development to further enhance the quality of their teaching. The success of prestigious institutions is embedded from their dedicated investment in knowledge, technologies and equipment that further enhance the quality and efficiency of their operations. In this context, Higher Education institutions invest in scientific research, and attending international conferences, in addition to





networking and cooperation agreements with other prestigious universities around the world. Therefore, the rapid increase of student enrolment in public universities may result to the regression of the quality higher education system.

The discussion above is only a quick sketch of an involved and complex situation that is enormously important to the future quality of Jordanian higher education. The dynamics are multi-faceted and layered in the traditions and structures of Jordanian higher education. This presentation cannot do justice to these issues, and I would not offer any recommendations based on what is inevitably an incomplete understanding of the issues. Producing policies to manage these dynamics will undoubtedly require collaborative work with representatives of both the public and private higher education communities from Jordan and also external higher education expertise. These issues arise from a nation that is putting resources and efforts into play to make a strong higher education tradition even stronger. This is hard work, and it will take continuous attention and effort to most effectively utilize all of the higher education resources of the nation. Barriers to effectiveness must be discerned and removed as quickly as possible. The goal must be to create forces that generate an upward spiral for educational quality.

## 5. Summary

Al Hussein Fund for Excellence sponsored reviews of accounting programs in eleven Jordanian universities in 2006. The reviews followed the discipline review practices that HFE had created and refined in previous years. Outstanding positive features of the programs were found related to teaching staff competence, teaching staff commitment to students, student commitment to programs, departmental desire for improvement, and developing institutional cultures of quality. Some of the more prevalent opportunities for improvement in programs are related to curriculum breadth, amount of material in coursework, use of English language teaching, grading flexibility, assignment of teaching, instructional technology, teaching staff hiring criteria, and maintenance of the learning environment.

A further set of issues that should receive the attention of Jordanian education officials relates to policies of university admissions and oversight. This set of issues does not arise from ill intent or from inattention. These are issues that naturally follow when there is widespread development and progress in a nation's higher education as is now the case in Jordan. Rapid positive change requires constant monitoring and refinement of policies to ensure that yesterday's solutions do not become tomorrow's problems. Jordanian higher education finds itself in the enviable position of having simultaneous growth and quality improvement. Careful attention without over-management will be required to maintain the positive trajectories of growth and quality for accounting education and for higher education.





## Appendices

### Appendix A: Participating Institutions

- Al-Isra Private University
- Al-Zaytoonah Private University
- Applied Science Private University
- Hashemite University
- Jerash Private University
- Mutah University
- Philadelphia Private University
- University of Jordan
- University of Petra
- Yarmouk University
- Zarqa Private University

### Appendix B: Reviewers

- Dr. Alvin Arens, Professor, Michigan State University, Ph.D., University of Minnesota
- Dr. James Crockett, Professor Emeritus, University of Southern Mississippi, D.B.A., Mississippi State University
- Dr. Silvia Madeo, Professor, University of Georgia, Ph.D., North Texas State University
- Dr. Fred Streuling, Professor, Brigham Young University, Ph.D., University of Iowa





# Quality Assessment of English Language and Literature Programmes in Ten (10) Jordanian Universities

## Subject Overview Report

**Prepared by:**  
**Teresa D. O'Donnell,**  
**(Subject Consultant)**

May 2008





## 1. Quality Assessment of English Language and Literature Education in Jordan

The review process promoted by Al Hussein Fund for Excellence (HFE) provides an independent assessment of the quality and academic standards of higher education in Jordan. The process encourages rectification of shortcomings, identified through a self-evaluation process and comparison with global educational practices through input from external review teams. At the same time, programmes under review are to establish internal systems and processes that lead to continuing improvement once the initial HFE process is complete.

For 2007-2008, HFE chose BA in English Language and Literature programmes as one of the disciplines to undergo review. Participation in the HFE review process is voluntary.

## 2. The Review Process

The process to be undertaken for all programme reviews is outlined in the HFE Handbook. The English Language and Literature (ELL) programme reviews carried out this process in the following manner.

### 2.1 Preliminary Workshop

Activities for review of English Language and Literature (ELL) programmes began with a March 2007 workshop presented by the English consultant. Over 50 participants, who represented public and private universities throughout the Kingdom, attended. The primary purpose of the workshop was to introduce the goals of the HFE and the process of review, to give instructions for undertaking a self-evaluation and preparing a report, and to foster an understanding of quality assurance and continuous programme improvement.

Participants received a mock self-study and a template for reporting their findings in a Self-evaluation Report (SER) that would be submitted in October 2008 to HFE. The SER was to be based on programme mission, aims, and Intended Learning Outcomes, which formed the basis for review in six Aspects:

1. Curriculum Design, Content, and Organization
2. Teaching, Learning, and Assessment
3. Student Progression and Achievement
4. Student Support and Guidance
5. Learning Resources
6. Effectiveness of Quality Management and Enhancement

An additional purpose of the workshop was to ensure that self-evaluation would be carried out in a similar manner at each university, and that SERs would be presented in similar formats. This would make reviews by external teams more efficient and provide for more consistency in the review process.



## 2.2 Reviewer assignments and training

Seven reviewers were chosen for their expertise in the areas of language teaching and learning, linguistics, and literature as well as for their experience in higher education programme review both in the United States and internationally. [A list of review team members, their institutional affiliation, and the Universities to which they were assigned is found in Appendix A of this report.] A reviewer workshop was held in the United States in October 2007 to familiarize team members with the HFE review process and evaluation criteria, and to clarify their roles, prior to, during, and following the on-site visits.

Eleven English Language and Literature programmes submitted SERs by the October 1, 2007 deadline. After review of the SERs, and following HFE guidelines, English Language and Literature review teams completed two documents for each programme: an Initial Analysis report for each programme review, which was submitted to HFE and the Consultant in mid February, and a Contact Letter sent to the Programme. The teams used the Initial Analyses as a means for documenting initial findings and for determining whether further information was needed from the site, either prior to or during the site visit.

## 2.3 The On-site Process

On-site visits were conducted over a period of 2 days for each programme from March 2 through March 16, 2008, with one writing day scheduled between each site visit. Teams communicated with the programme contact prior to the visit to decide upon a preliminary agenda. Visits were conducted according to HFE protocols for the on-site visits, including a review of supporting documents, interviews with administrative staff, interviews with faculty and students (current and graduates), class visits, and a tour of facilities, including libraries and computer and language labs.

## 2.4 Follow-up by the English Language and Literature Consultant

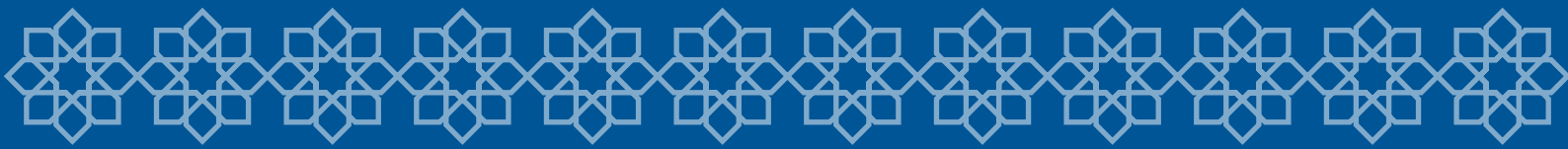
As one means to ensure the quality of the review process, to ensure consistency in team procedures, and to provide feedback to HFE, the English Consultant conducted follow-up visits to several sites where she met with Presidents, Department Chairs, Institutional Facilitators and faculty who had been involved in the self-evaluation process. For the most part, discussions centered on the adequacy of preparatory materials (including the HFE Handbook), the effectiveness of the workshop, the benefits and challenges of the self-evaluation process, production of the SER, and the quality of the review team. The Consultant asked Presidents for any specific recommendations for the HFE Board of Directors. Those received have been included in a separate Evaluation Report submitted to HFE.

## 2.5 Programme Review Reports

Review teams completed a programme review report for each programme. The reports include statements of overall strengths and areas for enhancement, and also identify strengths and areas for improvement related to each of the Six Aspects of Educational Quality listed above.

Initial report drafts were sent to each English Language and Literature Programme for factual corrections. Final reports were submitted to HFE following a verification meeting on May 10, when reviewers were asked to identify top performing programmes and those that would benefit from follow-up activities to enhance areas of weakness and to receive follow-up visits. Suggested activities are found at the end of this report.





### 3. Summary of Findings


Prior to any discussion of programme strengths and weaknesses and foundational to this summary review is the matter of the nature, focus, and scope of the English Language and Literature (ELL) departments. At issue and of concern for all major stakeholders within the Jordanian higher education system is the question of the increasing role of and need for English language in all sectors of the society. For some time, it has been and will increasingly be the case that students emerging from Jordanian universities should possess strong English language skills, enabling them to use that language in a variety of professional situations and settings. The same is true for those students who intend to pursue graduate education at the master's or doctoral level regardless of field of study.

A critical question, then, is what model of undergraduate education will best assist students to meet these goals. Within ELL programmes, currently in Jordan, as has been the case in many other countries, the underlying assumption has been that preparation for such goals requires a solid foundation in the literature of the English-speaking world along with, to a lesser extent, some basic language training (grammar, vocabulary, reading, writing, and elements of the sound system) and with some attention to linguistics (phonology, syntax and semantics with a focus on English). In very basic terms, the underlying assumption has been that, except for some attention to language matters per se, English language proficiency can be equated with knowledge of and familiarity with the literature and culture of English-speaking countries, most notably Great Britain and the United States.

Such a basis for designing English language programmes and then implementing study plans for literature departments would then be the same as for any equivalent programmes and departments, for example, in languages such as French, German, or Japanese. For quite some time, such programmes and departments even in the United States followed such a model. Over time, however, there has been the realization that such a focus and its accompanying combination of courses has had two major negative effects. First, students completing such programmes have not developed sufficient second-language skills to enable them to use that language in meaningful ways either for personal goals or for interaction with other users of English. Second, the heavy concentration on literature has produced students who, while familiar with some elements of the literary history and character of English, are not able to combine cultural understanding in its broadest sense with use of the English language.

An alternative that has emerged in second-language studies has been, instead, to combine, in ways which seem most appropriate, training in English language skills with applications of that language to a variety of social and cultural settings where that language is needed in today's world. Literature need not be excluded nor given less attention, should English language proficiency be a primary goal of the course of study. Rather, it becomes one element in an array of sources to be tapped in enabling students to use English for a variety of purposes. To be sure, undergraduate programmes should not be narrowly focused. Too much remains unknown about just what situations students will find themselves in – work settings, advanced studies, or other. Moreover, students leaving undergraduate programmes often move from one work situation to another.





The language-literature-linguistics model in place in most of the Jordanian ELL departments has been reviewed in this current process for what it is. While no judgment is placed on this system, the remarks above raise questions for future directions these departments could take in cases where the primary goal of the department is English language proficiency through literature study. (In cases where literature study is truly the primary goal, it is important that English language training is provided in advance of and then in support of the literature study, through a language center on campus, for example, or that students who wish to acquire English language proficiency be given options such as applied English degrees.) Application can be made to course and curriculum development as well as systems for student, course, and programme assessment. In longer range planning, there are implications as well of the need for advanced training for teaching staff who teach in these programmes.

An identification of general strengths and areas needing enhancement found through the HFE review process and pertaining across programmes, for the most part, follows from this background. Details regarding the strengths and areas for enhancement for each of the 11 programmes are found in the individual reports.

#### **4. General areas of strength**

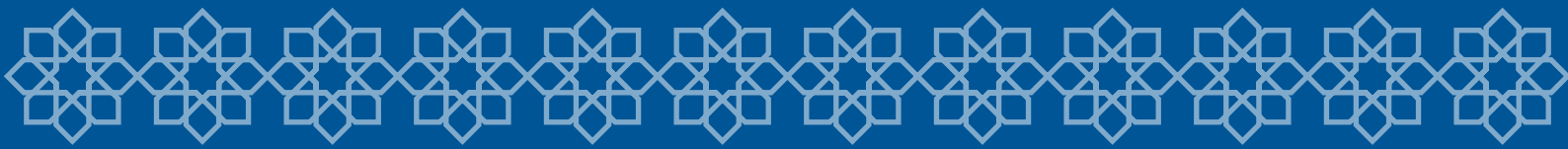
While not all programmes demonstrated the same strengths, there are some common threads worthy of mention. Strengths in some departments are found as areas needing enhancement in others.

The HFE review process is voluntary. Thus, programmes that chose to participate are, for the most part, those that value self-evaluation, external review, and the opportunity to implement a process of continuous improvement. Some programmes have benefitted from university policies that are strongly supported by presidents. This fact has resulted in the implementation of quality assurance initiatives in the past few years, including the establishment of quality assurance offices and the appointment of institutional facilitators. Such facilitators, when knowledgeable, appear to be helpful in fostering a culture of quality. It is evident that many programmes will appreciate further means for them to continue the process they have begun.

Where this commitment and a similar commitment to strategic planning is in place, the ELL departments have benefited. Many have already completed or begun the process of developing Intended Learning Outcomes. In such cases, faculty appear to understand the value and role of ILOs as a scaffold for building curriculum and as the basis for teaching and learning.

A commitment to the mission of the university and to the departmental mission was also evident on many campuses. Some universities have well-stocked library resources and laboratories to support English language teaching and learning and are aware of the need to provide computers for faculty. Others have made the commitment to bring additional technology into teaching, learning, assessment, and data collection, and students are being encouraged to make use of on-line resources as part of class work.





In addition, review teams found faculty and staff that are diverse, engaged, and dedicated to their students, not only in terms of providing instruction but also in terms of offering support services and counselling outside the classroom. Students themselves commented on this dedication and expressed great respect for faculty in most cases. The literature aspect of the teaching appears to be strong. Faculty have appropriate degrees for the range of literature courses taught, with some faculty engaging in research that then informs classroom content.

Student services appear to be an area that is robust on many campuses. Such services include strong orientation for students and their parents, mandatory academic tutoring, as well as personal, health, and career counselling.

While these strengths appear in a greater or lesser degree throughout the university system, several areas needing enhancement are also evident and have a great effect on the success of students in attaining the Intended Learning Outcomes. These areas can be seen clearly in relation to the nature, focus, and scope of the ELL departments described above in the preamble to this section of the report.


## **5. General areas needing enhancement**

### **5.1 Teaching and Learning**

Site visits to the 11 universities resulted in several conclusions about ways in which the areas of teaching and learning should be enhanced. The ILOs that result from the department's intensive research and planning must become the underpinning for every choice that is made regarding curriculum design and teaching methods, techniques, and activities. (All conclusions below do not apply to all programmes, or may apply to varying extents.)

1. Faculty in departments of ELL cannot make appropriate choices in curriculum design and pedagogy unless they are aware of new, widely accepted best practices. In many of the universities visited, there is a disconnect between traditional curriculum design and ways of teaching English language and literature and newer, currently accepted methods of language teaching and learning that can result in more students graduating with acceptable English language skills. Programmes would benefit from finding ways to provide professional development for faculty, such as by establishing faculty committees that are empowered both to conduct research into best practices in teaching English as a foreign language—including teaching language through literature—and to provide information and training for their colleagues.
2. Although it is true that good teaching and learning can take place anywhere there is a skilful teacher and a willing student, appropriate resources and facilities expedite the process. Faculty need to be given training and support in the integration of technology into the curriculum and culture of the ELL departments. In addition, teachers need access to computers in their offices for research and lesson preparation. They need “smart” classrooms in which they maximally use technological tools. They need to be aware of the power of social networking, blogs, and the internet in general to enhance students' opportunities to learn and practise English. Departments





which do not have them need language labs that are well stocked with a wide range of language learning software and resources, and that are open as much as possible for students' mandated, well-monitored independent practice and study.


3. Faculty need to know about and use current textbooks and print materials that are relevant to students' lives and to the needs of the marketplace into which the students will enter after graduation. In order to accomplish academic goals, faculty and students need extensive print and electronic library resources to use for study, research, and pleasure.
4. In every site visit, students reiterated the need for more opportunities to use English meaningfully outside the classroom. Traditional approaches such as English Club activities (e.g., dramatic performances, poetry readings, debates, writing contests, and so on) were often mentioned by faculty and should, of course, be supported. However, in many programmes there was no indication that innovative opportunities for real communicative practice have been investigated or implemented. In every university situation, there are unique opportunities for students' oral practice, but the universities will have to commit to "thinking outside the box" and to going far beyond the usual and customary approaches.
5. Because of the popularity of English degrees in Jordan, every ELL programme reviewed shared the problem of too many students and too few faculty, resulting in extremely large classes, particularly in language acquisition courses. Large classes (often from fifty to one hundred or more students) reduce students' opportunities for participation and feedback and reduce the number of written assignments that a teacher can assign and mark. Departments must work to limit the number of students in classes in order to increase students' attainment of ILOs. If not all language classes can be limited to thirty to forty students, departments are urged to look at the innovative approaches in some U.S. universities to improve students' learning in large classes. There are excellent models in place that can be examined and evaluated for their applicability to the situation in Jordan. Most of these approaches include a variety of kinds of e-learning, so this capability must also be assessed, developed, and supported.

## 5.2 Assessment

As a result of the 11 site visits, three areas related to assessment were identified which would benefit from systematic attention.

6. Most programmes need improved English language proficiency assessment practices. English language placement testing for students entering English language course sequences required as part of the degree programme was carried out in most programmes, following which most programmes enrolled students in up to three levels of English classes (typically designated 099, 101, 102, or similar). However, once students are divided into these broad level classes, further diagnosis or subdivision does not tend to occur, leading to large classes of mixed proficiencies. Most programmes had a remedial English language course as one of the levels. However, given the need to improve (vastly improve in some cases) the students' level of proficiency before entering





the degree programme, a clear system to bring students to an established and adequate entry level should be in place at all institutions. Where language centres or similar entities are available on campus, the ELL departments should maximize use of the centre for placement assessment.


7. All programmes would benefit from an expanded range of assessment practices in all classes. It is important that forms of assessment directly link to the knowledge and skills being taught as a means for assessing student attainment of programme ILOs. Also, students in all programmes will benefit from an increase in formative assessment, an educational practice which uses a variety of tools, emphasizes the progress and development of knowledge and skills, and balances against high-stakes summative assessment practices (a final essay worth 50% of the course grade, for example). Such changes will likely include adding flexibility to the traditional 25/30/50 (or similar) course grade breakdown. Regarding both recommendations 1) and 2) here, ample research exists to support these recommendations related to effective assessment of English language teaching and learning.
8. Regarding top-level or exit-level competencies for students graduating from the ELL programmes, the Ministry has established subject tests that are administered Kingdom-wide. The ITP, as the language subject test, appears now to be a stable requirement. However, the content and administration cycles of the literature subject test appears to fluctuate. This leaves the degree programmes uncertain of the criteria that the Ministry feels constitute the basics of the literature component of the degree, and this in turn directly impacts the knowledge goals expressed in the programmes' literature ILOs and the curriculum requirements. (It is true that the Ministry has published a statement of the criteria for the literature subject test; however, the criteria are broad and expressed in general terms, and therefore provide minimal guidance to curriculum planners.) The programmes would benefit from the Ministry establishing the criteria, testing cycle and test format as a stable requirement for some given period of time.

### 5.3 Professional Development Opportunities

Reviews of the 11 programmes showed that, for the most part, faculty are well-qualified, especially in terms of teaching literature and linguistics curricula offered in the ELL study plans. In some programmes, these same faculty are also responsible for teaching English language skills courses. It was evident, however, that many of the faculty members, except the TEFL professionals on staff in some departments, do not have the professional knowledge of best practice in language teaching and learning. Many department faculty and staff firmly believe that language is best taught through exposure to literature. However, many students do not have the sufficient English language skills prior to taking literature courses to totally benefit from that instruction. Nor does it appear that current research in ways to use literature to learn a language has taken hold.

To ensure that students are graduating from ELL programmes with sufficient English language skills to enter the workforce in a variety of settings, whether they become teachers, translators, or enter academe, for example, programmes need to ensure that faculty are prepared professionally so that students receive sound English language instruction. This can be accomplished in a variety of ways:



- 
1. Implementing focused, strategic faculty development systems to prepare faculty to shape content and methodology in all areas of the curriculum and to enrich teaching approaches. One way to address the issue is to offer appropriate professional development opportunities for current faculty on staff: workshops in such areas as content-based language learning, student-centered learning, and critical thinking; seminars on the use of e-learning and other technology-supported teaching and learning; faculty exchanges, etc.
  2. Encouraging and supporting faculty publications and presentations and encouraging research in effective teaching and learning, literature in the classroom, curricular design, and language assessment to bring about change in these areas.
  3. Recognizing the value of TEFL professionals on staff and using their knowledge to enhance teaching methods and methodologies to help students develop language skills.
  4. When positions are available, ensuring that new faculty hires have knowledge and experience with current theories and methods of language teaching and on using literature for the teaching of language.
  5. Finding ways to engage all faculty in the process of continuous improvement.

## 6. Recommended follow-up activities

In summary, these areas needing enhancement raise the question of how best to support the ELL programmes in their quest for improvement. Time is needed for review and revision of study plans and curricula combined with consideration of means for student, course, and programme assessment. Some of this can be achieved by additional training and professional development support for faculty who teach in these programmes. The HFE, with the support of the Ministry of Education, can play a role in this process to improve postsecondary English language and literature programmes in Jordan and thus meet the need for students to acquire adequate English language skills for the new market economy.

Thus, it is recommended that the HFE consider the following activities. The first three recommendations should be considered as a package that will help ELL departments move on with the quality assurance initiatives that have just begun for many of them.

### 6.1 Professional development institutes

A 2-week seminar in Jordan could be offered not only to faculty and staff in the programmes that participated in the current round of reviews but to other university departments as well. Curricular offerings would be based on review findings and needs of the programmes. Mini-courses could include TEFL methodology, teaching language through literature, assessment strategies, and use of education technology. The institute should be held, if possible, within the first year following the initial review at a time appropriate to the academic calendar.





## 6.2 One year progress reports

Companion to the 2-year follow-up visits would be an opportunity for sites to submit a one-year written report (without a site-visit) to one of the same initial reviewers, who would act as a consultant and provide feedback on improvements to date through electronic means of communication facilitated by the HFE.

## 6.3 Two year follow-up visits

At the time of the on-site visits, many ELL departments expressed an interest in follow-up visits. It is also the opinion of the ELL review teams that an opportunity for follow-up visits will provide further support for those departments that seriously undertook the current reviews, that are poised to put programme changes into place, and that want to participate in such visits. It is recommended that these be focused visits with emphasis on the areas of enhancement noted within the Six Aspects for Review in the recent review team reports and that, due to their insight into the programmes, at least one member of each of the 2008 review team carry out visits to the originally assigned universities.

## 6.4 Faculty exchange programmes

Many departments expressed an interest in faculty exchange programmes with universities in the UK and the US. While such exchanges are generally arranged between universities, the HFE could conceivably be involved in making such arrangements. The current review teams recommend that these be exchanges that would bring English language speakers to Jordanian universities, in particular faculty that could also give workshops and seminars in the areas needed by the programmes, as noted above.

Each of these activities will require coordination and professional input. Should HFE decide to move forward with the activities above, ELL review team members have agreed to consider being involved, based on their availability and the conditions for such continued work with the HFE.





## Appendices

### Appendix A: Review team members (with institutional affiliation) and assigned participant universities:

#### Team 1:

**Dr. Paul Angelis, Southern Illinois University, Chair Reviewer**

**Dr. Alexandra Rowe, University of South Carolina**

- Al-Zaytoonah Private University
- Al-Isra Private University
- Al-Hussein Bin Talal University

#### Team 2:

**Dr. Rebecca Smith-Murdock, University of North Texas, Chair Reviewer**

**Dr. Natalie Kuhlman, San Diego State University**

- Hashemite University
- Jerash Private University
- Zarqa Private University

#### Team 3:

**Dr. Mary Reeves, University of Oklahoma, Chair Reviewer**

**Dr. Gayle Nelson, Georgia State University**

**Dr. Mary Lee Field, Wayne State University**

- Al-Ahliyyah Amman Private University
- Applied Science University
- Philadelphia Private University
- University of Jordan







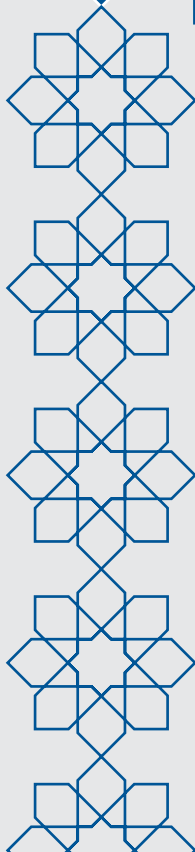


# Quality Assessment of Banking and Finance Programmes in Eleven (11) Jordanian Universities

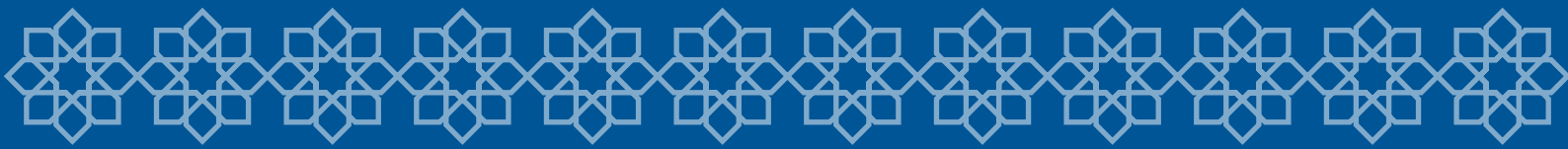
## Subject Overview Report

**Prepared by:**  
**Dr. Milton R. Blood**  
**(Subject Consultant)**

May 2008







## 1. An Overview of Finance and Banking Education in Jordan

Al Hussein Fund for Excellence (HFE) began sponsoring reviews of higher education programmes in Jordan in the year 2000. The reviews encourage comparison of Jordanian higher education programmes to global educational practices. Higher education institutions interested in continuous improvement are invited to volunteer for the HFE review process as a part of their efforts to develop quality assurance programmes that foster continuous improvement. The programme of reviews complements the Jordanian emphasis on developing and maintaining strong higher education offerings. The process benefits Jordanian higher education institutions and their graduates, and it helps to create a level of higher education quality that attracts students from throughout the Arab world.

Each year HFE selects specific disciplines for review, and eligible universities volunteer their respective programmes for participation in the process. A participating university benefits from the opportunity to receive focused, internal and external attention to the quality of its programmes in the selected disciplines. The process begins with a thorough internal self-evaluation of the disciplines, and then the degree programmes in the disciplines are subjected to rigorous scrutiny by external subject specialists.

HFE chose undergraduate programmes in finance and banking for review in 2008. Universities were given the opportunity to choose whether they are interested and would participate in the Finance and Banking review process, and eleven universities elected to do so. The review process followed guidelines and procedures established in reviews of other academic disciplines in previous years.

The external reviewers and the subject consultant wish to commend the wisdom of the HFE for establishing this review process and for their continued support of this work to enhance Jordan's higher education. We also want to acknowledge the efforts of the staff members of HFE for their support in implementing this review process. We would not have been able to perform our tasks without their able management of relationships and logistics.


## 2. The Finance and Banking Review Process

### 2.1 Preliminary Workshop

The subject consultant for finance and banking held a workshop in Amman, Jordan March 11-12, 2007 for representatives of universities with finance and banking programmes. The workshop helped the participating universities understand the nature of the review. Universities that participated in the workshop sent multiple representatives – usually the head of the finance and banking department, the dean of the faculty that includes the finance and banking programme, and the academic vice president or another university executive. Topics treated at the workshop included:

- The goals of the HFE review,
- How HFE quality assurance efforts coincide with regional and global activities in higher education,
- Self-evaluation and self-evaluation report,
- Procedures for the external review process, and
- Evaluative criteria for determination of educational quality in the HFE review process.





From this introduction to the review process, universities were able to determine whether they wished to continue in the review. Those schools that decided to continue began to prepare their self-evaluation report, and they communicated the workshop information to other university staff members who would become involved in the review.

## 2.2 Document Review

Following the workshop, eleven institutions completed a self-evaluation report that was delivered to HFE by the deadline of August 30, 2007. The finance and banking consultant engaged noted finance-and-banking educators from the United States of America to conduct the external review portion of the process. On October 26, 2007 the external reviewers came together in Washington, D.C., USA for training on the HFE criteria and to begin analyzing the self-evaluation reports for the external reviews.

A list of the eleven participating institutions and information concerning the assigned reviewers can be seen in Appendices A and B. Two expert reviewers were assigned as a team to review each finance-and-banking programme. Each team read the self-evaluation report from its institutions and corresponded with the respective finance-and-banking programmes. This preliminary correspondence asked for additional information as necessary to clarify questions that arose from the reading of the self-evaluation report. Subsequently, the team chair worked with administrators of the programme to arrange for the visit and agreed with the programme on a schedule of activities for the visit. Programmes responded with additional information as requested and prepared for the visit.

## 2.3 On-site Review

The external review visits took place during March 2-13, 2008. The review teams spent two full days on-site at each institution, during which time they discussed various aspects of the programme with administrators, teaching staff members, students, graduates, employers of graduates, and other parties as necessary to understand the programme's operations. They also collected and reviewed data, observed classes, and viewed facilities and technology of the programme.

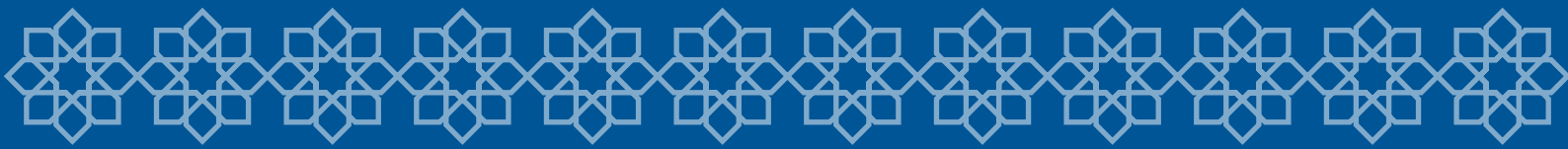
## 2.4 Review Reports

Each team shared a draft report from each visit with the respective institution to allow for the correction of factual errors. Then, the chair reviewers, subject consultant, and HFE General Manager met May 11, 2008 in Washington, DC, USA to discuss the set of reviews and reports. At this verification meeting they made final refinements to the reports to assure consistency across the entire set of reviews and evaluations. Further, they identified two finance-and-banking programmes regarded by reviewers as showing the highest educational quality.

The reviewers evaluated programmes on six aspects of educational quality as designated in the HFE process:

- Curriculum design, content, and organization
- Teaching, learning, and assessment
- Student progression and achievement
- Student support and guidance
- Learning resources
- Effectiveness of quality management and enhancement





Each participating institution received a final report of the reviewers' comments from their evaluation. The report provides the reviewers' findings regarding each of the six aspects of educational quality and it discusses the strengths and opportunities for improvement of the programme.

### 2.5 Follow-Up to the Review

The process calls for follow-up visits to each of the reviewed institutions in two years. A focus of the follow-up will be to assess progress on areas that were suggested for improvement.

## 3. Finance and Banking Programme Strengths

The finance-and-banking programmes that participated in this review demonstrate several strengths in their educational programmes. These are briefly described here. The features in this list are shared by several or all of the reviewed programmes. Although they are typically found in the programmes, they may not be characteristic of all of them. Individual review reports describe additional strengths, and the individual reports provide greater detail about programme strengths than this overview report. Strengths found in only a few of the programmes are not listed here. While each of these listed strengths may not be evident in every reviewed programme, they were sufficiently pervasive to consider them to be characteristic of Jordan's finance and banking education.


### 3.1 Teaching Staff Competence

Although certain schools and individual teaching staff members do not fit this description, numerous schools were cited for the quality of educational and experience that teaching staff members bring to their programmes. In their hiring process, several of the schools insist on graduate work from Western European or United States institutions. Throughout the set of reviewed programmes, many well-trained teaching staff members deliver the educational offerings. Further, given the difficulties of obtaining qualified professors, universities have processes to discover academically talented students and then to support those students through graduate education so that they can return as members of the teaching staff. The intellectual capital of teaching staff members is one of the most fundamental components of quality in higher education. Thus, teaching competence forms a critical resource for Jordanian finance and banking education to be maintained and enhanced. Nothing can substitute for the intellectual strength of the teaching faculty. This is a resource that is hard won and easily lost. Other countries in the region are actively building business education programmes, and the competition is growing for high-quality Arabic-speaking professors. Holding onto these resources and obtaining additional qualified teaching staff will be one of the most significant challenges these programmes face in the near future.

### 3.2 Teaching Staff Commitment to Students

In virtually all of the programmes, students, graduates, and often employers commented on the commitment of professors to student learning. Teaching staff members are unified in their dedication to the goals of the finance and banking programmes as defined by the Intended Learning Outcomes (ILOs). Students recognize that the teaching staff members care about students' academic success. Professors demonstrate their commitment in a variety of ways in various schools. It shows up in





student advising, regular office hours and availability to students who need assistance, keeping teaching materials and syllabi current, and thoughtfully defined ILOs.

### **3.3 Student Commitment to Programmes**

The teaching staff competence and commitment have a counterpart in the reaction of students to their programmes. Throughout their interviews with students, the reviewers found that students generally are happy with the university they are attending. Several said that they would recommend the university they are attending to their siblings and friends.

### **3.4 Finance and Banking Departments Desire for Programme Enhancement**

By one measure, every one of the reviewed programmes looks for opportunities for programme enhancement; that is, each of the programmes volunteered for the HFE quality assurance review. Each of them invested considerable effort into preparing the self-evaluation report and participating in the external review portion of the process. Other indicators of the finance-and-banking departments' interest in quality improvement are several programmes with internal management mechanisms to assess their programme success and to seek out opportunities for course or programme enhancement. Teaching staff members and administrators welcomed suggestions for improvement from the reviewers and were eager to implement them.

### **3.5 Institutional Culture of Quality**

In several of the reviewed institutions, a structural culture of quality is developing. In large measure, this results from participation in the HFE review process of other disciplines in previous years. Since the HFE process itself is rather young, the degree of development of quality processes at some schools is quite impressive. Such institutions have established an office to oversee quality-assurance activity throughout the institution, and they have begun to integrate quality assurance and improvement processes through numerous academic units, that is, independent of the HFE quality reviews, the institutions conduct their own quality assessments and develop their own continuous improvement projects. Now that this activity has begun, institutions must ensure that these quality assurance projects generate real results. There is a danger that quality assurance offices will simply become another bureaucratic layer or entity in the university. The goal is not to have a system or reports. The goal is to create mechanisms that continuously enhance educational quality.

## **4. Opportunities for Improvement of Finance and Banking Programmes**

The reviews discovered several programme features that provide opportunities to enhance Jordan's finance-and-banking education. As with the strengths listed above, this overview report lists only those opportunities for improvement that arose in numerous institutions. Individual visit reports present more detailed discussions.





#### 4.1 Lack of Breadth in Curricula

The undergraduate finance-and-banking curricula in the reviewed schools typically require 120-130 credit hours in four years of study. Of that total, 60-70 credit hours are in required courses in finance and banking. This is an extraordinary proportion of the curriculum to devote to finance and banking. World-class programmes more typically have no more than 25% or 30 credit hours in the major. Although they allow graduates to attain depth in finance and banking studies, these Jordanian curricula leave little room for students to attain breadth in social science and general business knowledge. Students gain technical expertise in finance and banking, but they are not able to pursue those courses that would develop the whole person. Graduates may, thus, be prepared for their entry job into a finance or banking career, but they are not likely to have a broad understanding of business that will allow them to move upward into general management or corporate leadership positions as their careers develop.

The Ministry of Higher Education and scientific research sets the standards for the curricular structure. Institutions do revise and modify their curricula to assure that they deliver current concepts and practices, but these revisions must occur within the strictures of the said curriculum structure, and all curriculum revisions must receive Ministry approval. Discussions should begin to consider ways to modify the Ministry requirements and to give the institutions more autonomy and flexibility to create curricula to fit their student populations and employer expectations. To compete in the global finance and banking educational market, the proportion of the curriculum devoted to the major must be drastically reduced (by as much as 50 percent).


#### 4.2 Low Expectations for Amount of Material to be Learned

Across virtually all of the reviewed finance-and-banking programmes, reviewers noted that the amount of learning taking place within individual finance-and-banking courses is insufficient and proceeds at an unusually slow pace. Courses are not sufficiently demanding. Two courses may be required to cover the amount of finance-and-banking material that would normally be expected elsewhere in a single course. This situation occurs within educational practices that put little individual learning responsibility on the student.

Most learning takes place within the classroom. Students have relatively little in the way of assignments for reading, cases, and projects to be undertaken outside of class. At several institutions, students acknowledged to the reviewers that expectations are minimal for cases and projects to be done outside of class. Students themselves told the reviewers that they would be able to do substantially more than is required of them. The resolution to this issue could assist with the breadth issue raised in the previous point. If courses required more work and progress, some of the excess of finance-and-banking credit hours in the curriculum could be converted into valuable breadth courses.

The programmes need to challenge students to higher-order learning. Students must acquire such intellectual tools as critical thinking skills, contextual thinking skills, leadership skills, entrepreneurship knowledge and other capacities that will prepare them for their professional careers. Many of the students are first-generation college students, and they need to learn work habits and professional behaviour expectations. Though virtually all of the programmes have computer





laboratories available, much more use of them should be made so that students are familiar and comfortable in using them for study projects.

#### **4.3 Insufficient Use of English**

Most of the eleven programmes were cited for the need to increase the English language skills of students and to increase the use of English in the finance and banking programme. To prepare graduates to perform well in the global corporate and financial marketplace, they must become conversant in English, the international language of business. This point was emphasized to the reviewers in discussions with students, graduates, and employers. Even with strong technical skills, graduates will not be attractive to employers engaged in international business if they do not also have a good command of English. With few exceptions, this is a critical deficiency of the finance-and-banking programmes.

#### **4.4 Lack of Flexibility in Grading Practice**

Many of the reviewed programmes base course grades on a rigid formula with a weighting of 20% for the first exam, 20% for the second exam, 50% for the final exam, and 10% for other coursework. Although it does not seem to be the case, some teaching staff members believe this grading formula is externally imposed on them. In fact, the Ministry of Higher Education places a maximum of 50% on the final exam, but does not say that it must be 50%. Nor does the Ministry have a formula for other portions of grading. If a rigid formula is imposed by a university, then the finance and banking department should address this issue with the university administration.

In finance and banking, much valuable learning experience should be gained in cases, projects, and problems, rather than in learning material for a traditional examination situation. Since non-examination learning experiences can only amount to 10% of the grade if the programme uses this rigid formula, teaching staff members and students have little incentive to use their efforts on such activities. Requiring 50% of a course grade to be determined by a final examination is inappropriate for a finance and banking course, and it has negative influences on the course structure. Teaching staff should use more flexibility and should structure their grading practices to place more emphasis on learning experiences that fit with their topics.

#### **4.5 Professionalism**

For a number of the reviewed finance and banking programmes, the reviewers suggested that the strength of the programme and the strength of individual student professionalism could be enhanced through encouragement for students to prepare for financial certification. Just as accounting students are encouraged to prepare for certification in accounting through Certified Public Accounting or Certified Management Accounting examinations, students in finance could be encouraged to prepare for the Certified Financial Analyst Institute examination. Encouragement of this major step in professional qualifications would focus students on professional finance knowledge and skills and would increase the attractiveness of graduates in the financial-service industry marketplace.



#### 4.6 Internships

An extremely valuable feature of an education for a career in finance and banking can be the opportunity to complete an internship in an applied setting. First-hand experience participating in the operations of financial institutions or in the financial operations of organizations provides students with insights and understanding that give an added richness of meaning to classroom experiences. Internships help to prepare students for the careers they will be entering by giving a) an immersion in professional behaviour, (b) experience with implementation and application of the content they study, and (c) a contextual view of the financial life of organizations. Unfortunately, few of the reviewed finance-and-banking programmes provide meaningful internship or practicum experience for their students. In several cases, nominal internships existed in form, but they had little substance.

As an arm of the Jordanian banking community, HFE is particularly well suited to help to remedy this weakness. Every finance-and-banking student should have an opportunity to experience a meaningful internship with systematic, supervised learning and evaluation components. Work study programmes as well as external placements should be used for internship and practicum experiences. However, creating these applied experiences for students is not an easy task. It takes significant effort to generate, coordinate, and maintain internship programmes. HFE is positioned to take the lead in making such an enhancement happen. To strengthen this feature would be a significant enhancement to finance-and-banking education, and it would be a valuable contribution from HFE.


#### 4.7 Students admission

One characteristic of higher education in Jordan has a serious challenging impact on the universities and was repeatedly cited when finance and banking reviewers were conducting the reviews. That feature is rooted from the increasing number of student enrolments and significantly the rise in the number of students in classrooms.

The above challenges go beyond finance-and-banking departments and are witnessed in all other departments alike. These consequences have visible influence within the operations of the finance-and-banking programmes. Moreover, their long-term effects on Jordanian higher education (and Jordanian finance-and-banking education) have a great influence on educational quality. In fact, these challenges are so serious that, in the opinion of this consultant, if they are not resolved they will overwhelm other efforts to enhance Jordan's higher education. Unless such policy issues are changed, Jordan's higher education may suffer significant setbacks and will likely lose its position of pre-eminence in Middle-Eastern higher education.

With regards to public universities, the MoHESR is responsible for admitting most students to the universities and to programmes. In doing so, MoHESR determines the number of students enrolled in universities and in programmes. In recent years and in the realm of the external changes and the demographic changes that have been witnessed in Jordan in the past years, MoHESR has, in effect, mandated that the Public universities accept more and more students, especially in the regular program to meet with the increasing number of school graduates. At times, enrolments have been set to such large numbers for the finance and banking programmes that educational quality is harmed in





most public universities. In many cases, enrolments greatly exceed the capacity of the teaching staff and of the facilities.

The major results from this excess of student populations are large class sizes and excessive demands on teaching staff members' and their availability. Large classes result in less effective teaching. Among other consequences, large classes dilute the opportunities for students to have individual contact with teaching staff members, make it harder for teaching staff members to gain and retain students' attention, and encourage the use of multiple-choice testing that ignores more complex skill development (e.g. analysis, critical thinking, and logical presentation of ideas).

Additionally, excessive demands on teaching staff to manage the heavy student loads can result in too little time and energy available for research and other professional development efforts. Just like any other enterprise, higher education must have new materials coming in, and in the case of universities the "new material" is the knowledge and skills developed in personal research activity, in disciplinary conferences and in communication with colleagues around the world. Thus, the high enrolments specified for public universities erode the educational quality of their programmes. Students receive poorer education and teaching staff quality diminishes over time as the teaching staff is unable to develop professionally.

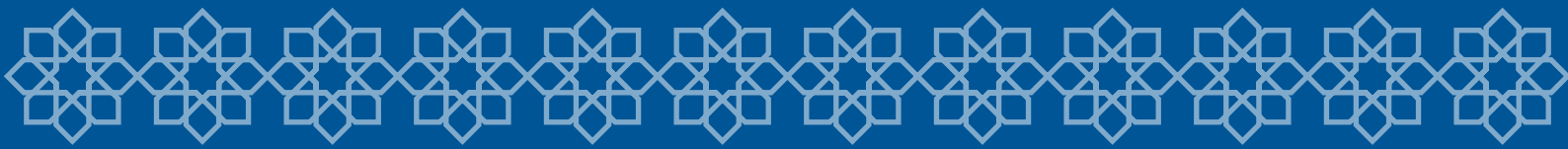
The success of prestigious institutions is embedded from their dedicated investment in knowledge, technologies and equipment that further enhance the quality and efficiency of their operations. In this context, Higher Education institutions invest in scientific research, and attending international conferences, in addition to networking and cooperation agreements with other prestigious universities around the world. Therefore, the rapid increase of student enrolment in public universities may result to the regression of the quality of higher education system.

Enrolment management effects in the private universities are more complex. The MOHE employs strict enrolment limits to ensure that the private institutions do not enrol too many students to be able to accommodate them with quality education. This makes the learning experience for both students and for teaching staff members very different in the private institutions. Teaching staff can give more attention to problems of individual students. Teaching staff members can also give greater attention to research and scholarly pursuits. This situation has the positive potential to allow private universities to enhance instructional quality and to provide a more satisfying learning experience for students.

On the other hand, with MoHESR setting enrolment limits on private universities, MOHE can have unintended negative impacts on programmes. For example, recently the entrance requirement for finance-and-banking programmes was raised from 55 to 70 on the high- school exam. A result at some private schools that prided themselves on helping to foster development in under-prepared high school graduates was to eliminate many potential students. Teaching staff members had to be let go in response to the resulting reduction in enrolment.

One result from this change was the loss of an important educational opportunity for students who have not had access to adequate preparatory education or who did not take full advantage of their





previous education. The private schools can provide a critical “second chance” for these students and create larger numbers of professionally educated graduates. Indeed, some of the private schools take their societal role in this regard very seriously.

Further, the rigid application of curricular and grading requirements in private universities constrains innovations to provide better learning experiences. The practices of business are constantly undergoing changes. Thus, in disciplines related to business, institutions must be able to adapt quickly with minimal interference. When curricula are constrained as at present, schools quickly fall behind in needed changes.

The discussion above is only a quick sketch of an involved and complex situation that is enormously important to the future quality of Jordan’s higher education. The dynamics are multi-faceted and layered in the traditions and structures of Jordanian higher education. This discussion cannot do justice to these issues. They are complex, and will require careful study and courageous implementation of changes. I recommend that a special task force be created to work on these issues and return recommendations within a set time frame. Such a task force should be composed of equal representation from public and private universities and should include external experts who can bring independent thought to the problems.

Especially in business disciplines, the competition to deliver high-quality education is no longer confined to Jordanian universities and a few others in the Middle East. The Gulf nations are committed to making rapid strides in producing outstanding universities. With their excessive resources, they will compete in attracting students, locating and hiring teaching staff, and providing outstanding learning facilities. Jordan’s well-earned reputation in higher education will not be sufficient to withstand this competition without constant improvement. This means there is a short window of time for the Jordanian universities to remedy systemic barriers to quality. If progress is not made quickly, Jordan will lose its reputation as a leader in higher education in the region.

Producing policies to manage these dynamics will undoubtedly require collaborative work with representatives of both public and private higher education communities, MoHESR, and also with external higher education expertise. These issues arise in a nation that is putting resources and efforts into play to make a strong higher education tradition even stronger. This is hard work, and it will take continuous attention and effort to most effectively utilize all of the higher education resources of the nation. Change is always uncomfortable, and the magnitude of required change in this instance will certainly find many persons who will want to slow or stop it. Nonetheless, major changes must occur to maintain Jordan’s higher education strength. Barriers to effectiveness must be discerned and removed as quickly as possible. The goal must be to create forces that replace the dynamics of a downward spiral with an upward spiral for educational quality.





## 5. Summary

The HFE sponsored reviews of finance-and-banking programmes in eleven universities in 2008. The reviews followed the discipline review practices HFE has created and refined in previous years. Outstanding positive features of the programmes were found related to teaching staff competence, teaching staff commitment to students, student commitment to programmes, departmental desire for improvement, and developing institutional cultures of quality. One of the most critical opportunities for improvement in the programmes to bring them into line with global practices in finance-and-banking education is curriculum breadth. Requirements of the MoHESR seem to place twice as much curricular attention to the finance-and-banking major than is customary in high quality programmes in other parts of the world. To meet this requirement, programmes are often replete with redundant material, and learning expectations are lowered to stretch the learning out to meet the course requirements. Additional prevalent opportunities for improvement in programmes are related to amount of material in course expectations, meaningfulness of internships, use of English language teaching, encouragement of professionalism, and grading flexibility.

An overriding set of issues that should receive immediate attention of Jordanian education officials relates to MoHESR policies of university admissions and oversight. This set of issues does not arise from ill-intent or from inattention. These are issues that naturally follow when there is widespread development and progress in a nation's higher education as is now the case in Jordan. Rapid positive change requires constant monitoring and refinement of policies to assure that yesterday's solutions do not become today's problems. Currently the public universities are being overloaded with students with several resulting threats to quality as a consequence. At the same time, enrolment and other restrictions on the private universities impact innovation negatively and service to their segment of the student population is similarly faced with quality problems. Without some corrective action, these issues can turn Jordanian education from an upward path to a downward spiral.

Jordan's higher education finds itself in the enviable position of having simultaneous growth and quality improvement. Deservedly, Jordan has a positive reputation among Middle-Eastern countries for the strength of its higher education. It is also, however, in the most dynamic and competitive region of higher education growth in the world. Careful attention without over-management will be required to maintain the positive trajectories of growth and quality for finance-and-banking education and for higher education in general.





## Appendices

### Appendix A: Institutions Participating in the HFE Finance and Banking Education Review Process (In alphabetical order)

- Al-Ahliyyah Amman University
- Al Al-Bayt University
- Al-Isra Private University
- Al-Zaytoonah Private University
- Applied Science Private University
- Hashemite University
- Jerash Private University
- Philadelphia Private University
- University of Petra
- Yarmouk University
- Zarqa Private University

### Appendix B: Reviewers

- **Dr. Ronnie Clayton**

Eminent Scholar and Professor of Finance  
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- **Dr. Kimberly Gleason**

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Florida Atlantic University  
DBA, Southern Illinois University at Carbondale

- **Dr. John Hogan**

Dean Emeritus and Professor Emeritus  
J. Mack Robinson College of Business  
Georgia State University  
Ph.D., Syracuse University

- **Dr. Chun Lee**

Associate Professor of Finance  
College of Business  
Loyola Marymount University  
DBA, Southern Illinois University at Carbondale





- **Dr. Sattar Mansi**

Associate Professor of Finance

Pamplin College of Business

Virginia Technological Institute and State University

Ph.D., George Washington University

- **Dr. Joseph Sinkey, Jr.**

Professor Emeritus of Banking and Finance

Terry College of Business

University of Georgia

Ph.D., Boston College















In recognition of the importance of assessing and enhancing the quality of higher education programmes, Al Hussein Fund for Excellence (HFE) conducted a set of assessment reviews for a number of academic programmes in different disciplines provided by higher education institutions in Jordan.

The HFE has adopted internationally recognized criteria based on those followed by the Quality Assurance Agency of United Kingdom (QAA). The QAA criteria were slightly adjusted to meet the developmental needs of higher education institutions in Jordan.

During the period (2001 - 2009), the HFE organized and completed assessment reviews of 83 academic programmes in 7 different disciplines involving 17 universities and 7 community colleges. At the end of each round of evaluation, review experts issued a subject overview report that sheds light on common strengths and weaknesses found in the assessed discipline. The report also lists recommendations for the enhancement of academic programmes at universities in Jordan.

This Overview Report consists of the complete set of subject overview reports, hoping that it will pave the way for HE practitioners to embark on positive aspects influencing higher education, overcome the challenges witnessed by the sector and create a sustainable and systematic approach for enhancing the quality of higher education in the kingdom.

We thus encourage researchers, stakeholders and HE professionals to further investigate the developments and improvements that were made by universities on the participating programmes in the realm of the unprecedented challenges and fast pace of changes witnessed in the higher education sector of Jordan and the world at large.

